

LIVESTOCK MANAGEMENT PLAN

Marrambi

September 2026

KOALA FARMLAND FUND

TABLE OF CONTENTS

List of Tables iii

List of Figures iii

Abbreviations and Acronyms iv

Document Control v

Executive Summary 1

1 Introduction 2

1.1 Background 2

1.2 Scope of LMP 3

1.3 Roles and Responsibilities 3

2 Objectives and outcomes 6

3 Strategic grazing management approach 9

3.1 Livestock agistment agreement 9

3.2 Fencing 9

3.3 Grazing areas 12

3.4 Grazing type 13

3.4.1 Previous high intensity grazing regime 13

3.4.2 Proposed low intensity grazing regime 13

3.5 Grazing species 13

4 Monitoring 14

4.1 Recruiting tree monitoring 14

4.2 Fuel hazard monitoring 15

4.2.1 Method 15

4.2.2 Timing 16

4.3 MHQA and weed monitoring 17

5 Triggers and corrective actions 18

6 Adaptive management 21

7 Risks 22

7.1 Risk assessment 23

7.1.1 Overgrazing 23

7.1.2 Under grazing 24

7.1.3 Biosecurity 25

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

8 Review and Reporting 27
8.1 Review of the LMP 27
8.2 Annual reporting 27
9 Conclusion 28
References 29
Appendix A Suitably Qualified Ecologist CV 34
Appendix B Fuel Hazard Monitoring Proforma 35

LIST OF TABLES

Table 1: Offset Provider contact details 4
Table 2: Offset specific livestock management conditions 7
Table 3: Life stage traits for woodland eucalypts and tolerance to grazing 12
Table 4: Number of plots by revegetation area 14
Table 5: Assessing near-surface fine fuel hazard 16
Table 6: Guide to number of sampling sites relative to paddock size 16
Table 7: Grazing triggers, corrective actions and follow up monitoring 19
Table 8: Description of likelihood definitions 22
Table 9: Description of consequence definitions 22
Table 10: Risk ratings matrix 23
Table 11: Overgrazing risk assessment 24
Table 12: Under grazing/wildfire risk assessment 25
Table 13: Overgrazing risk assessment 26

LIST OF FIGURES

Figure 1: Offset Property overview 5
Figure 2: Fencing Overview 11

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Description
ARA	Active revegetation area
AUs	Assessment Units
cm	Centimetre
DAFF	Department of Agriculture, Fisheries and Forestry
DAWE	Department of Agriculture, Water and the Environment (superseded)
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEHP	Department of Environment and Heritage Protection (superseded)
DETSI	Department of Environment, Tourism, Science and Innovation
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ha	hectare
LMP	Livestock Management Plan
MHQA	Modified Habitat Quality Assessment
MLA	Meat & Livestock Australia
Offset Property	"Marrambi" property located at Bryden, QLD, 4312.
OMP	Offset Management Plan
SEQ	South East Queensland
the Offset Provider	Upscale Capital Pty Ltd ATF Koala Farmland Fund 2

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

DOCUMENT CONTROL

The version history of this document is identified below. This document or the information in it may be subsequently updated or amended. The responsibility for ensuring that printed or downloaded copies remain valid rests with the user. Once printed, this is an uncontrolled document unless issued and stamped Controlled Copy.

Version	Date	Author	Review	Approved
REV 0	21/08/2026	J. Castor	R. Martyn	S. Charles
REV 1	02/09/2026	J. Castor	R. Martyn	S. Charles
REV 2	18/09/2026	J. Castor	R. Martyn	S. Charles

Commercial in Confidence

The information and opinions contained in this document are strictly confidential. Accordingly, the contents of this document or opinions subsequently supplied will constitute confidential information and may not, without the written consent of Upscale Capital Pty Ltd ATF Koala Farmland Fund 2, be published, reproduced, copied or disclosed to any person (other than your advisors having a need to know and who are aware that it is confidential), nor used for any purpose other than in connection with its intended use.

Disclaimer

To the maximum extent permitted by law, Upscale Capital Pty Ltd ATF Koala Farmland Fund 2and its officers, employees and consultants involved in the preparation of this document are not liable (whether by reason of negligence or otherwise) for any statements or representations in this document, or any omissions from it, or for any use or reliance on the information in it. Upscale Capital Pty Ltd ATF Koala Farmland Fund 2 accepts no responsibility for any liability arising from use of this document or its contents.

Acknowledgement

Upscale Capital Pty Ltd ATF Koala Farmland Fund 2 acknowledges Traditional Owners and Custodians of Country throughout Australia and recognises their ongoing connection to lands, waters and communities. We pay our respects to Aboriginal and Torres Strait Islander Elders past and present.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

EXECUTIVE SUMMARY

The Marrambi Livestock Management Plan (LMP) has been developed by Koala Farmland Fund (Upscale Capital Pty Ltd ATF Koala Farmland Fund 2) to guide livestock management across biodiversity offset areas within the Marrambi Offset Property, a site of approximately 553 hectares in Bryden, Queensland. The plan supports the integration of low intensity, rotational grazing as a bushfire fuel load management tool while ensuring that grazing activities do not compromise ecological values or biodiversity outcomes identified in the approved Offset Management Plan (OMP) on the property.

The LMP is action based and aligns with sustainable grazing principles and recent ecological research that supports the compatibility of strategic grazing with biodiversity conservation. Strategic, rotational grazing is used to manage groundcover, reduce fuel loads, and support regeneration of eucalypt woodlands.

Key features of the LMP include:

- Defined objectives that support ecological regeneration through planned grazing.
- A rotational grazing regime based on measurable triggers (i.e. tree height, fuel load levels).
- Fencing strategies to control livestock access.
- A comprehensive monitoring framework covering tree recruitment, fuel loads, habitat quality, and pasture health.
- Corrective actions and adaptive management protocols in response to trigger events.

The plan also ensures full alignment with Commonwealth approvals for the offset, detailing specific commitments, monitoring protocols, and reporting obligations. All activities under the LMP will be documented in annual Offset Area Assessment Reports, ensuring transparency and accountability.

The LMP will be reviewed and updated periodically, especially as new monitoring data or technology advancements warrant adjustments. It enables a balanced, science-backed approach to achieving dual land use for grazing and biodiversity conservation.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

1 Introduction

This Livestock Management Plan (LMP) has been prepared to guide property wide livestock monitoring and management activities across offset areas secured on "Marrambi" (the Offset Property). The Offset Property is approximately 553 ha in size and is located at Bryden QLD 4312 in the Somerset Regional Council area, approximately 19 km east of the town of Esk as illustrated in Figure 1.

The Offset Property is owned and managed by Upscale Capital Pty Ltd ATF Koala Farmland Fund 2 (the Offset Provider) for the purpose of securing and managing land for biodiversity offsets. One offset under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999 has* been secured over the entirety of the Offset Property and an Offset Management Plan (OMP) has been prepared and approved for implementation (as detailed in Table 2). This OMP identifies outcomes focused management actions including requirements for livestock management to reduce threats posed to offset protected matters.

The LMP is a stand-alone, action-based document that has been developed to satisfy livestock management and monitoring requirements outlined in the OMP, and to ensure a whole-of-property approach. Additional information about the offset area and offset matters is presented in the OMP and should be consulted as required.

1.1 Background

Grazing livestock such as cattle, sheep and horses, are sometimes regarded as destructive to emerging tree and shrub seedlings and therefore the regeneration of timber dominated ecosystems. As a result, offset agreements to date have permanently excluded livestock grazing and substituted cultural or mosaic burning (strategic burning) to manage fuel loads and protect seedlings. However, changes in burning practices and the effects of climate change, resulting in a warmer and drier environment over much of Australia, has affected fire regimes (intensity, scale, frequency and seasonality) and increased the incidence of extreme fire-danger events in some parts of Australia (Australian Bureau of Meteorology & CSIRO, 2020; Dowdy, 2020; Sharples et al., 2016).

One way of managing fuel loads is to implement hazard reduction burns. Whilst hazard reduction burns can be an effective way of managing larger wildfires, they could also pose a significant conservation challenge to threatened species, such as koalas (*Phascolarctos cinereus),* greater gliders (*Petauroides volans*) and grey-headed flying fox (*Pteropus policephalus*). Fire is considered a threatening process to these threatened fauna (Department of Agriculture, Water and the Environment (DAWE), 2022; Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2021, 2022). Especially concerning are planned or unplanned fires that raise temperature in the canopy and produce burning and scorching of the canopy that destroy habitat and result in mortalities (Bentley and Penman, 2017; Parkins et al., 2019).

Emerging research is occurring which supports the benefits of low intensity temporary grazing for the management of bushfire fuel loads (Clark et al., 2023; Davies et al., 2022; Pillar & Overbeck, 2025; Schachtschneider et al., 2024). Cattle grazing can reduce fuel in several ways. The most frequently studied and perhaps most important way is by removing fine fuels. This can affect fire behaviour by reducing rates of spread, flame lengths and fire intensities (Clark et al., 2023; Ratcliff et al., 2022; Schachtschneider et al., 2024).

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

As well as the above benefits, there are broader benefits in avoiding the impacts of grazing on conservation values. For example, a southeastern Queensland study indicated that a rich and abundant bird fauna can coexist with moderate levels of grazing in uncleared sites (Martin & McIntyre, 2007) and some bird species reached their highest abundance under moderate grazing pressure (Martin & Possingham, 2005). Sites with moderate grazing pressure also had higher numbers of herbaceous plant species than sites with high and low grazing pressure (McIntyre et al., 2003) If the ground layer has retained a large grass tussock structure, it is more likely that all plant response groups will have some representation, and ecosystem function will be maintained under moderate grazing (McIntyre et al., 2003).

In areas where eucalypt regeneration is required as part of offset management, it is recommended that new seedlings be protected from fire for a minimum of three years. Conservative grazing in this period may also be important to minimise damage to eucalypt seedling regeneration (Department of Primary Industries and Fisheries (DPI&F), 2007). Livestock grazing can be compatible with reforestation in eucalypt woodlands, as long as grazing pressure is held at low to moderate levels, and strategic spelling is adequate to allow tree recruitment (Department of Environment, Science, Information Technology, Innovation and the Arts (DETSI), 2014). Continuous high grazing pressure is not recommended if it prevents the recruitment of trees or leads to soil degradation. Studies have shown that when perennial grasses and perennial forbs become scarce (e.g. in times of drought or overgrazing), sheep, feral goats and cattle will browse large shrubs and trees (Phal, 2020).

The sustainable grazing management principles outlined in this document set out guidance around the management of livestock grazing to reduce fire hazard which is critical in achieving the intended outcomes and conservation gains for the koala, greater glider and grey-headed flying fox as well as each of the OMP over the management period.

1.2 Scope of LMP

The LMP includes:

- Roles and responsibilities for implementing the LMP.
- An overview of the objectives and outcomes of the LMP.
- A summary of the management approach.
- Methods for ongoing monitoring activities.
- Triggers and corrective actions for management activities.
- Adaptive management strategy; and
- Management plan review and reporting obligations.

1.3 Roles and Responsibilities

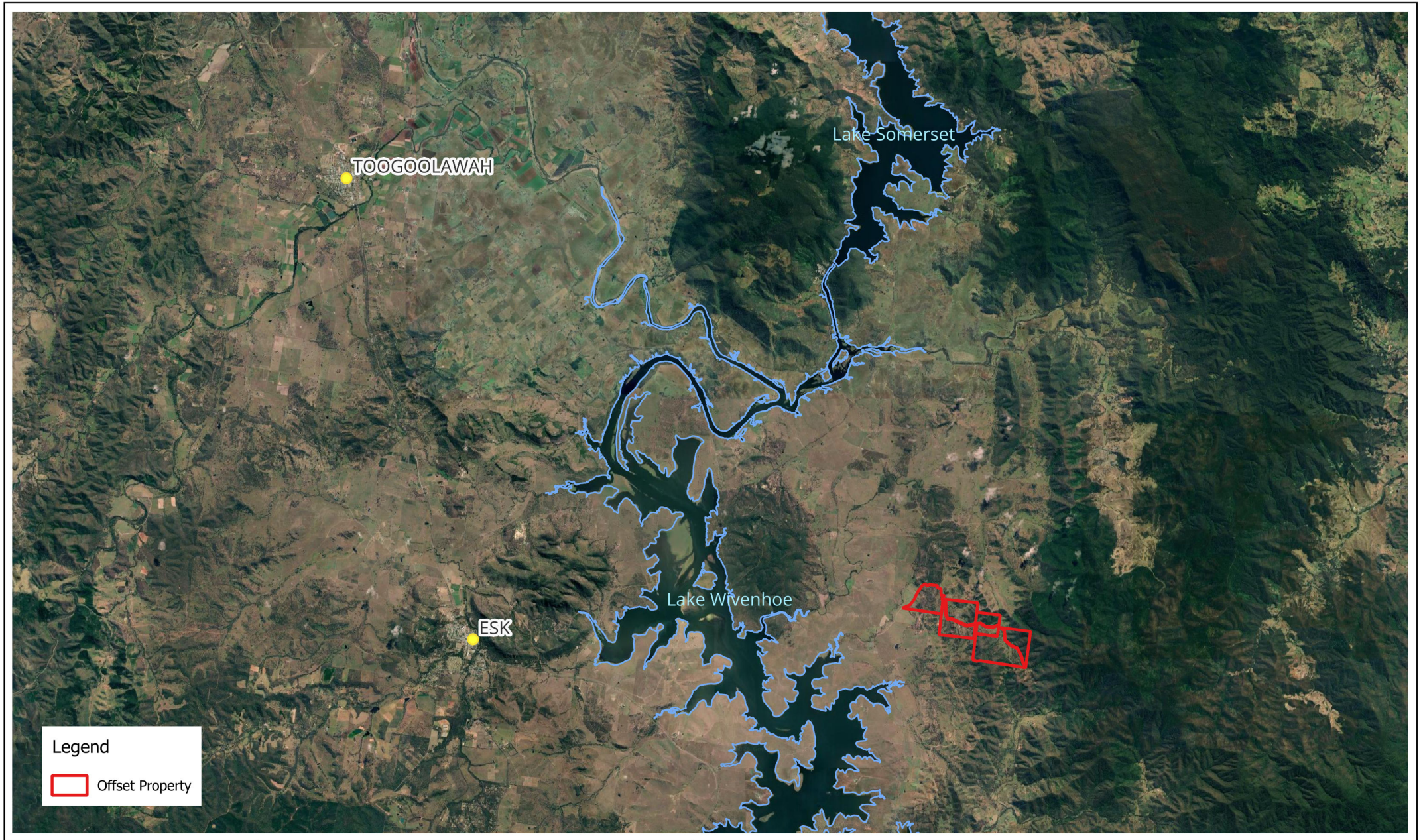
The Offset Provider is responsible for the implementation, and funding of, all aspects of this LMP. The Offset Provider's contact details are presented in Table 1

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 1: Offset Provider contact details

Offset Provider Details	
Registered Owner/s on Title: Upscale Capital Pty Ltd ATF Koala Farmland Fund 2	
Business/Company name: Koala Farmland Fund	**ABN:** 52 727 368 837
Contact person: Rob Martyn	**Mobile phone:** 0403 420 482
Email: rob.martyn@koalafarmlandfund.com.au	**Postal Address:** 2/83 Heeney St Chinchilla Qld 4413

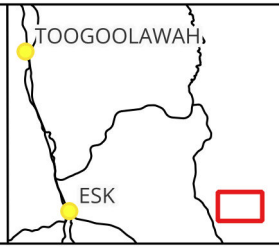
© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.



KOALA FARMLANDFUND

0 8 16 km

Coordinate system:
GDA2020 MGA Zone 56



Notes and data sources:
Aerial Imagery: Google Satellie
Cadastre: DCDB 2026
Roads: QSC 2021
Water: DNRMMRRD

0	Issued for use	J. Castor	10/08/2026
REV	Description	Drawn	Date

FIGURE 1: OFFSET PROPERTY OVERVIEW

Marrambi Livestock Management Plan

Koala Farmland Fund gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accepts no liability for any loss, damage or costs (including consequential damage) relating to any use of the data in this map.

2 Objectives and outcomes

Grazing management in highly variable environments like the South East Queensland (SEQ) Bioregion cannot be based on simple methods or implemented on calendar-based schedules. No set formula exists for determining the strategy appropriate to any particular objective. The overarching objective of the LMP is to allow for carefully planned and managed livestock grazing at defined, low risk times of the year as a means of encouraging ecological biodiversity while managing fuel loads and allowing a more rapid regeneration of the woodland to remnant vegetation status. This objective will be achieved by implementing a range of management and monitoring activities across the Offset Property. Table 2 summarises the specific conditions and commitments to be achieved for the offset area as per the requirements of the OMP.

Livestock management within the Offset Property is also critical to achieving the improvements in species specific habitat quality scores as set out in the OMP. These scores are assessed through the application of the Modified Habitat Quality Assessment (MHQA) method as documented in the OMP. MHQA assessment methods also presented in the OMP are not replicated in this LMP.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 2: Offset specific livestock management conditions

Offset/ Size	Offset Protected Matters	EPBC Ref. number	EPBC Approval specific conditions/commitments	Section in LMP where conditions/commitments addressed
Frasers Property – New Beith (~553 ha)	• Koala (*Phascolarctos cinereus*) • Grey-headed flying fox (*Pteropus poliocephalus*) • Greater glider (*Petauroides volans*) • Swift parrot (*Lathamus discolor*); and • Regent honeyeater (*Anthochaera Phrygia*)	2019/8398	**Condition 34** - Any Grazing Management and Monitoring Plan must be prepared by a suitably qualified ecologist. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in a Grazing Management and Monitoring Plan must be SMART and based on referenced or included evidence of effectiveness. Any Grazing Management and Monitoring Plan must be consistent with the Environmental Management Plan Guidelines, and must include: a) details of the relevant protected matters and a reference to the EPBC Act approval conditions to which the plan refers b) a table of commitments made in the plan to achieve the offset outcomes, and a reference to where these commitments are detailed in the plan c) commitments capable of ensuring that the offset outcomes are achieved d) reporting and review mechanisms to demonstrate compliance with the commitments made in the plan e) an assessment of risks relating to achieving the environmental outcomes and risk management strategies and mitigation measures that will be applied to address identified risks f) impact avoidance, mitigation and repair measures, and the timing of those measures	This LMP was prepared by Suitably Qualified Ecologist Jacqui Castor (CV attached in Appendix A). a) This table b) This table c) Sections 3 to 5 d) Section 8 e) Section 7 f) Sections 3 to 5 g) Sections 4 and 5 and this table

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

			g) a program of monitoring and responding to the effects of grazing to ensure that the offset outcomes are met or exceeded, which must include: i. performance indicators ii. trigger values for corrective actions iii. the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators iv. proposed corrective actions if trigger values are reached, and v. links to other relevant plans or conditions of approval (including state approval conditions).	

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

3 Strategic grazing management approach

Strategic grazing within the Offset Property will be used to reduce and manage understory fuel loads, particularly surface and near surface fuel loads (Hines et al., 2010). Grazing will only be permitted on a managed and limited basis. Best practice management for strategic livestock grazing within the Offset Property will be undertaken as follows:

- Grazing will not occur in areas under active revegetation (i.e. planting) until the trees have reached a specified height (Section 3.3).
- Livestock will only be permitted on a timed rotational grazing system (as detailed in Section 0); and
- Grazing will only occur once certain fuel hazard triggers have been achieved in order to leave a healthy landscape (as detailed in Section 4.2 and Table 7).

The suitability of an area for undertaking a grazing event will be informed by recruiting tree monitoring as described in Section 4.1 and fuel hazard monitoring as described in Section 4.2. Grazing will occur during all seasons if the minimum criteria for fuel hazard are met.

3.1 Livestock agistment agreement

Livestock will be grazed on the property under a livestock agistment agreement. The Offset Provider has an existing binding agreement with a compliant lessee who will provide livestock to be grazed on the property under conditions specified by the Offset Provider. The agreement includes a clause that enables the Offset Provider to give notice to the lessee to remove livestock from a grazed area. This enables the Offset Provider to have full control over the grazing practices on the Offset Property which includes the ability to remove livestock completely when conditions are no longer suitable for grazing. As well as this, as part of the livestock agistment agreement, the lessee must adhere to the biosecurity management plan in place for the property.

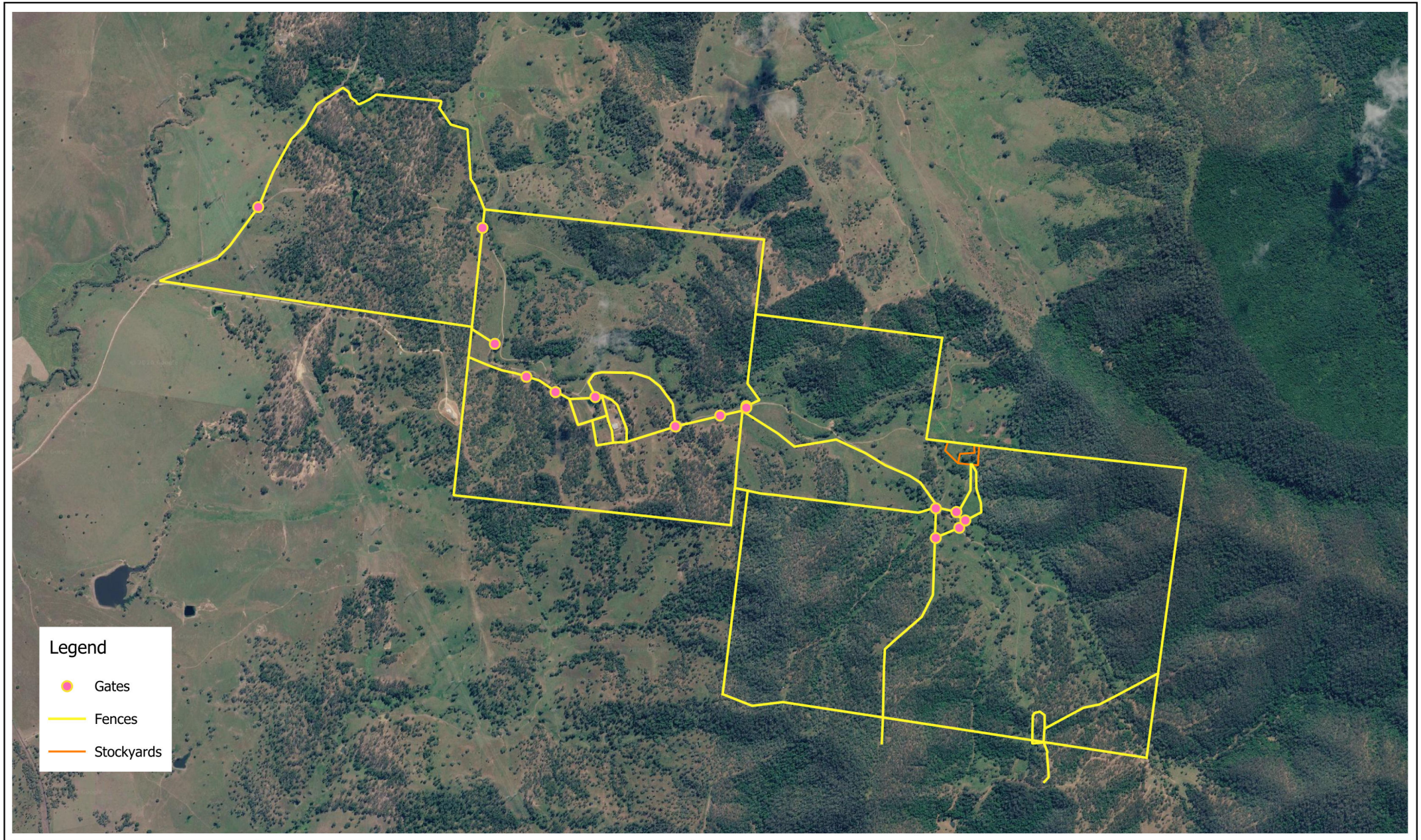
3.2 Fencing

The Offset Property will be fenced into separate paddocks to ensure livestock can be excluded from an area when grazing is not required/permitted. Permeant fencing design (fauna friendly as per the OMP) for the Offset Property is depicted on Figure 2.

Temporary fencing will be used within the Offset Property to exclude certain areas from grazing. Temporary fencing will consist of electric fencing that also meets the requirements of fauna friendly (i.e. top wire non-electrified and bottom strand more than 300 mm from the ground). Electric fencing is a highly reliable and cost-effective way to control animal movement, both for the safety of wildlife and farm animals (Wildlife Friendly Fencing, 2026; WIRES, 2026). It is important however that electric fencing is installed properly (e.g. taut strands of wire, use of one energiser) and maintained so that hazards, such as likelihood of people or animals suffering entanglements, entrapments or receiving multiple shocks is minimised. Therefore, installation and maintenance will be done in accordance with the *Australian / New Zealand Standard 3014/2003 Electrical Installations – Electric Fences*.

Temporary fencing is easily reconfigured to fence off areas with which grazing cannot occur (i.e. areas of active revegetation where planted trees are below 30 cm). Once these areas are able to be grazed, this fencing can be removed.

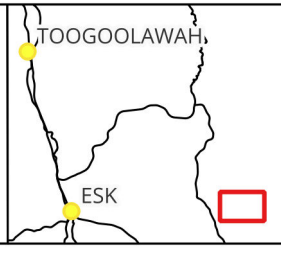
© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.



KOALA FARMLANDFUND

0 1 2 km

Coordinate system:
GDA2020 MGA Zone 56



Notes and data sources:
Aerial Imagery: Google Satellie
Cadastre: DCDB 2026
Roads: QSC 2021
Water: DNRMMRRD

0	Issued for use	J. Castor	10/08/2026
REV	Description	Drawn	Date

FIGURE 2: FENCING OVERVIEW

Marrambi Livestock Management Plan

Koala Farmland Fund gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accepts no liability for any loss, damage or costs (including consequential damage) relating to any use of the data in this map.

3.3 Grazing areas

Strategic grazing will only occur in areas of the Offset Property which have reached the targets detailed in Table 7. Areas with active revegetation will be excluded from the grazing rotation (as outlined in Section 3.2) until trees being established are at a height that is able to withstand moderate grazing pressure as detailed in Table 3 below (adapted from DETSI (2014)). It is proposed that grazing will be excluded from these areas until the average tree heights within a monitoring area are 30 cm or above (but not before 6 months following planting to allow for plant development). To monitor the height of the establishing trees, transects will be established in these areas as detailed in Section 4.1.

Grazing will also be excluded from recently burned areas of the Offset Property. Grazing triggers after fire are outlined in Table 7.

Table 3: Life stage traits for woodland eucalypts and tolerance to grazing

Life stage		Height (approx.)	Tolerance to grazing	Grazing permitted?
	Seedling	Up to ~ 20 cm	Unlikely to survive if most shoots are removed	No
	Short sapling	20 – 150 cm	Likely to survive and resprout from base if most shoots are removed.	Yes
	Tall sapling	> 150 cm	Probably beyond the reach of most herbivores; can resprout from base and upper stems / branches.	Yes
	Mature tree	Canopy height	Probably beyond the reach of most herbivores; can resprout from base and upper stems / branches.	Yes

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

3.4 Grazing type

3.4.1 Previous high intensity grazing regime

The Offset Property was previously grazed under a high intensity grazing system, defined as an intensive continuous, set stocked grazing system whereby livestock are run in a paddock continuously with no spells from grazing. Continuous grazing can mean that pasture utilisation may be above or below the optimal level at any one time and there is a potential for overgrazing with livestock habitually revisiting preferred areas (Meat & Livestock Australia (MLA), 2025).

3.4.2 Proposed low intensity grazing regime

The Offset Property is proposed to be grazed under a low intensity grazing system. A low intensity grazing system is defined as a rotational grazing system, whereby livestock are moved to a new paddock after a pre-determined period of time (i.e. fuel load triggers as per Table 7) (DAFF, 2013).Generally, livestock on the property are grouped together into large mobs and each mob is moved in a rotation around all available paddocks. This system allows paddocks to spell and spreads the grazing pressure away from favoured areas such as creek flats or areas of heavier soil types (DAFF, 2013). This grazing system allows rest and regeneration of vegetation and grasses whilst also allowing for fuel loads to be kept at a minimum. If a paddock is grazed appropriately, the risk of livestock browsing on woody vegetation is significantly reduced (Phal, 2020). Rotational grazing has been shown to lead to an improvement in the utilisation of pasture, a reduction in selective grazing, and a maintenance of pasture cover (Earl & Jones, 1996; Sanford et al., 2003).

3.5 Grazing species

LMP has been developed with cattle (*Bos taurus*) as the primary grazing species. However, other livestock species may be present on the Offset Property over time, including sheep (*Ovis aries*) and horses (*Equus caballus*).

While it is acknowledged that different livestock species can exert varying pressures through browsing, trampling, and impacts on recruitment, the monitoring framework, triggers and corrective actions outlined have been designed to detect and respond to changes in habitat condition irrespective of the grazing species present.

An adaptive management approach will be applied, whereby monitoring outcomes are regularly reviewed. Should impacts arise more rapidly than anticipated, or if species specific effects are identified, management settings will be adjusted accordingly, including modification or removal of particular livestock species if required.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

4 Monitoring

The results of the monitoring program outlined in the following sections will be used to inform operational management decisions, including adaptive implementation of the OMP to ensure the performance criteria, management objectives, and completion criteria are met.

The monitoring results will also be used to assess adherence to performance criteria, and to determine when corrective actions are required to be implemented. The results will also be compared to those from previous monitoring events to assess change overtime and to inform the ongoing implementation of the OMP.

4.1 Recruiting tree monitoring

To determine when grazing can occur within areas of active revegetation, the heights of planted trees in these areas will be monitored. Trees will be planted in these areas according to the revegetation plans of the OMP and will be planted at specified stem densities for the individual pre-clear REs according to the *Regional Ecosystem Technical Descriptions* (Queensland Herbarium, 2018), or as per the revegetation plan if different.

To monitor the height of planted trees[1] within active revegetation areas (ARAs), the below will be conducted 6 months following the time of planting, and thereafter every 3 months until the desired height and stem density is reached (Table 7), whereby monitoring will cease.

In each ARA, plots will be established where the following will be conducted:

- One (1) 50m x 10m plot to audit planted trees including:
  - tree count; and
  - tree height

Within each ARA, the number of plots will be determined by Table 4 below (adapted from (DAFF, 2003)).

Table 4: Number of plots by revegetation area

Size of ARA	Number of plots required
< 3 ha	Sample individual trees instead of using plots
3 – 5 ha	5 plots
5 – 10 ha	8 plots
> 10 ha	10 plots

If on average, across all plots within an ARA, recruiting trees are on or above 30 cm, then these areas can join the grazing rotation. If not, another round of monitoring will be carried out.

[1] Only planted trees will be monitored within these plots as all areas will be planted to a specified stem density which will include all trees at the time of planting. This means that any new recruits that are coming through are excess to these requirements and do not need to be counted in the height monitoring as these will continue to recruit.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

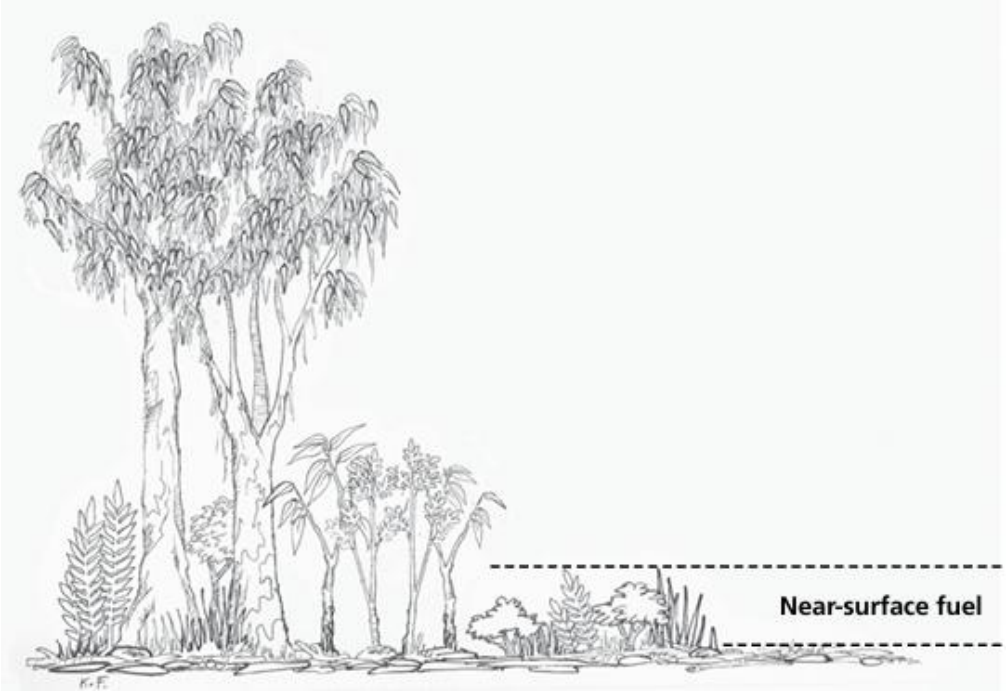
Once the trees have reached the desired height and livestock are introduced, fuel load monitoring (Section 4.2) and MHQA monitoring (Section 4.2.2) will be carried out.

4.2 Fuel hazard monitoring

4.2.1 Method

To assess the suitability of grazing for reducing fuel hazard across the Offset Property, a visual fuel hazard assessment will be carried out regularly, prior to grazing events to determine when livestock should be introduced to an area as well as during grazing events to determine when livestock should exit an area (timing of fuel hazard monitoring detailed in Section 4.2.2).

Fuel hazard monitoring will be undertaken as a modified version of the *Overall Fuel Hazard Assessment Guideline* (Hines et al., 2010). This guide has been principally designed to provide information on fuel arrangement to be used by land and fire managers to provide a measurable objective and trigger for fuel management in fire management plans. In this guide, each fuel layer is assessed simply and visually, in turn and given a hazard rating. Particular emphasis is placed on how the fuel is arranged within each of these layers. Of interest to this LMP is the near-surface fuels only (Picture 1) (Hines et al., 2010) as these are the attributes with which can be modified with grazing. The full overall fuel hazard assessment for the Offset Property will still be conducted annually as per the requirements of the OMP (as detailed further in Section 4.2.2).



Picture 1: Near-surface fuel depiction from Hines et al. (2010)

To assess near-surface fuel levels, the following table from will be utilised. To determine the near-surface fuel hazard rating a best fit of all key attributes in Table 5 below (Hines et al., 2010) should be sought. Choices for the hazard rating of fuels that fit across several descriptions should be informed by the “effect on fire behaviour”. An example proforma for the collection of data is provided in Appendix B.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 5: Assessing near-surface fine fuel hazard

Key attributes			Fuel hazard rating	Effect on fire behaviour
Plant cover	**% dead**	**Horizontal connectivity**		
<10%	<10%	Near-surface fuel is absent or virtually absent.	Low	Little or no effect.
10-20%	<20%	Gaps many times the size of fuel patches.	Moderate	Occasionally increases flame height.
20-40%	>20%	Gaps between fuel patches are greater than the size of fuel patches. Starting to obscure logs and rocks.	High	Contributes to surface fire spread and causes patchy increase to flame height.
40-60%	>30%	Fuel patches are equal to or larger than the gaps between the fuel patches.	Very high	Contributes significantly to fire spread and flame height. A fire will spread readily in this layer without having to consume the surface layer.
>60%	>50%	Very small gaps between fuel patches. Logs and rocks obscured.	Extreme	Contributes significantly to fire spread and flame height. A fire will spread readily in this layer without having to consume the surface layer.

Within each paddock (as defined by permanent or temporary fencing), the total number of fuel hazard monitoring locations will be established as per Table 6 below (adapted from the *Guide to Determining Terrestrial Habitat Quality V 1.2* (Department of Environment and Heritage Protection (DEHP), 2017). This will be undertaken once a month by the Offset Provider whilst cattle are grazing.

Table 6: Guide to number of sampling sites relative to paddock size

Paddock size (ha)	Suggested number of sampling sites
0-50	At least two
50-100	Three
100-500	Four

4.2.2 Timing

Overall fuel hazard monitoring will be conducted once per year in accordance with the OMP, which prescribes annual fuel load monitoring assessments as well as the BMP. This will be conducted regardless of whether grazing is occurring or not.

Fuel hazard monitoring assessments (Section 4.2.1) will be conducted leading up to a grazing event (number of times to be determined by the land manager, noting that livestock can only enter the area if the area meets the criteria for grazing as outlined in Section 5), and overall fuel hazard monitoring

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

will be occurring at a minimum of once per year regardless. Once livestock have entered an area to begin grazing, monitoring will occur once per month at a minimum, with regular weekly visual assessments of the area made by the land manger throughout the grazing period. If the land manager determines that ground cover is diminishing quickly, more assessments will be carried out. One assessment immediately following (within two weeks) the end of a grazing period will also be carried out to determine if the grazing pressure was appropriate.

4.3 MHQA and weed monitoring

MHQA and weed monitoring will be conducted in line with the approved OMP. Baseline surveys will be conducted within the Offset Area before the commencement of works, with ongoing monitoring surveys conducted at 5-year intervals (baseline, year 5, year 10, year 15, year 20) for MHQA and annually for weeds, or as per the OMP. This will enable the tracking of any possible long-term effects of grazing on vegetation structure.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

5 Triggers and corrective actions

Measurable events or parameters (triggers) have been identified for the management of grazing within the Offset Property. The triggers indicate that a performance criterion has not been satisfied, instigating the implementation of contingency plans and corrective actions. The monitoring actions, triggers, corrective actions and follow up monitoring actions are detailed in Table 7 below. Where uncertainty exists around grazing, grazing will be delayed, reduced or suspended.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 7: Grazing triggers, corrective actions and follow up monitoring

Grazing monitoring action	Trigger	Corrective / management action	Follow up monitoring
Recruiting tree height monitoring	Planted trees within the monitored area are above 30 cm (on average)	• Livestock are permitted to enter an ARA under conditions as per Section 4.2; but • only if the fuel hazard rating is appropriate (as below).	Once livestock have entered the ARA, monitoring is then to occur in accordance with: • Fuel hazard monitoring (Section 4.2; and • MHQA monitoring (Section 4.2.2).
	Planted trees within the monitored area are below 30 cm (on average)	• Grazing is not to be undertaken within the ARA; and • Recruitment monitoring must continue as per Section 4.1 until the trees have reached 30 cm.	• Recruitment monitoring must continue as per Section 4.1 until the trees have reached 30 cm; and • MHQA monitoring (Section 4.2.2).
Fuel hazard monitoring	The fuel hazard rating falls below moderate in a grazing area during a grazing event.	• Livestock will be removed from the grazing area within one week and moved to another paddock with appropriate fuel hazard ratings. • The grazing area will be spelled until the fuel hazard rating is above high or above.	The spelled area will be monitored routinely as part of general maintenance to assess the fuel loads. If it is believed the fuel loads are becoming too high again, a fuel hazard assessment will be conducted using the methods in Section 4.2.
	The fuel hazard rating is high or above.	• Livestock are permitted to enter the grazing area to begin a grazing event. • If the area contains planted trees, grazing can only occur if planted trees are also above 30 cm as per Section 4.1.	Fuel hazard monitoring as per Section 4.2.
MHQA and weeds	MHQA scores and/or weed metrics do not meet the interim performance criteria (as determined in the OMP).	A review of the grazing process will be undertaken under the OMP to determine if grazing is likely to be the cause of the low MHQA scores or increased weed cover. If the review determines that the grazing is impacting these, the livestock will be removed from the grazing area.	• A review of the grazing process will be undertaken under the OMP to determine if there were any errors in the management actions. If the review determines that changes to the management actions are required, the changes will be made and implemented prior to the next grazing event.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

			• Follow up monitoring will be guided by corrective actions as per the OMP.
Grazing after fires	A paddock has recently been burned	Grazing will not occur in the recently burned area until the fuel hazard rating is high or above.	Regular monitoring as per Section 4.2.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

6 Adaptive management

As seasonal/climatical conditions vary widely and continuously so too will the management actions required to satisfy the objectives of this LMP. Management will need to respond strategically to changing conditions in order to implement the strategy. This continuous response, guided by a well thought out strategy, is the principle of adaptive management.

Under the adaptive management framework of the OMP, in the future, where better technology becomes available (e.g. technology that can accurately determine fuel hazards), this will be reviewed and may be implemented without prior approval from DCCEEW. If so, this LMP will be updated as necessary to include changes to the methodology. Where substantive changes to the LMP are considered necessary (i.e. changes to grazing approach, triggers or intensity), the proposed amendments along with justification will be provided in writing to DCCEEW prior to the changes occurring.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

7 Risks

A limited number of risks associated with livestock grazing are evaluated within the Offset Property. Risks are described and assessed against the likelihood and consequence model outlined in the *Environmental Management Plan Guidelines* (DCCEEW, 2024). The following risks are considered in more detail in this LMP:

- Risk of overgrazing; and
- Risk of under grazing leading to wildfire.

Each environmental risk is given a rating in terms of likelihood and consequence using the criteria in Table 8 and Table 9. These ratings are then combined to derive risk scores, as shown in

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 10. An assessment of each of the risks described above is detailed in Sections 7.1.1 and 7.1.2 below.

Table 8: Description of likelihood definitions

Likelihood rating	Likelihood definition
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the project
Possible	Might occur during the life of the project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Table 9: Description of consequence definitions

Consequence rating	Consequence definition
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 10: Risk ratings matrix

Likelihood	Consequence				
	Minor	**Moderate**	**High**	**Major**	**Critical**
Highly likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

7.1 Risk assessment

7.1.1 Overgrazing

In grazing systems, ceasing to graze a paddock at the right time is a critical procedure to prevent overgrazing and the associated impact on pasture regrowth and resource management (MLA, 2024). Repeatedly stopping grazing too late (overgrazing) can have the following consequences as they relate to the protected MNES (according to the relevant statutory documentation) on the Offset Property:

- Reduced regrowth potential of desirable native ground cover species leading to decreased MHQA scores.
- Overgrazing to the point of soil compaction, reduce the pasture's ability to provide input of valuable organic matter to the soil leading to habitat degradation and reduction in koala, greater glider and grey-headed flying-fox habitat tree regrowth potential.
- Ground cover falling to the point where soil is exposed and results in erosion leading to habitat degradation and reduction in koala, greater glider and grey-headed flying-fox habitat tree regrowth potential; and
- Overgrazing to the point where livestock begin to browse recruiting trees and shrubs required for koala, greater glider and grey-headed flying fox.

The assessment of overgrazing risks within the Offset Property without mitigation is that the occurrence is highly likely and consequences of such an event would be moderate (reasoning detailed in Table 11). The risk therefore of overgrazing without intervention and management is evaluated as a high risk to all offsets (Table 11). The management actions that are proposed to be implemented to reduce this initial risk rating are outlined throughout Section 4. With the implementation of all relevant management actions, the likelihood is reduced to unlikely, and the consequence reduced to minor, reducing the risk rating to low (Table 11).

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 11: Overgrazing risk assessment

Mitigation status	Likelihood - discussion	Consequence - discussion	Risk Rating
Pre-mitigation	**Highly likely** – if left unchecked, overgrazing can and does happen very easily**.**	**Moderate** – whilst overgrazing would lead to substantial instances of environmental damage (as per consequences above), these would be isolated to the fenced paddock with which grazing is occurring and could be reversed with adequate paddock spelling.	**High**
Post-mitigation	**Unlikely –** with regular monitoring as per Section 4 as well as triggers and corrective actions guiding grazing, overgrazing should not occur however is still possible.	**Minor –** if overgrazing did occur, this would be detected quickly and isolated to fenced paddocks therefore any damage that did occur would be considered minor and could be reversed with adequate paddock spelling.	**Low**

7.1.2 Under grazing

If an area is left ungrazed for an extended period, fuel loads can accumulate which can exacerbate the effects of a wildfire should it occur within the Offset Property. The consequences of under grazing leading to increased fuel loads as they relate to protected MNES (according to the relevant statutory documentation) on the Offset Property:

- Increased flame height, fire intensity and spread leading to:
  - Death of large trees providing habitat for greater glider, koala and grey-headed flying fox
  - Overall habitat destruction leading to reduced MHQA scores; and
  - Mortalities of koala, greater glider and grey-headed flying fox.

The assessment of under grazing/wildfire risks within the Offset Property without mitigation is that the occurrence is likely and consequences of such an event would be major (as detailed in Table 12). The risk therefore of overgrazing without intervention and management is evaluated as a high risk to all offsets (Table 12). The management actions that are proposed to be implemented to reduce this initial risk rating are outlined throughout Section 4. With the implementation of all relevant management actions, the likelihood is reduced to unlikely, and the consequence reduced to high, reducing the risk rating to medium (Table 12).

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Table 12: Under grazing/wildfire risk assessment

Mitigation status	Likelihood - discussion	Consequence - discussion	Risk Rating
Pre-mitigation	**Likely** – If fuel loads are left to accumulate, the likelihood of these fuel loads leading to a hotter wildfire is likely during the life of the project.	**Major –** should under grazing occur, leading to an increase in fuel loads, a hot burning wildfire would cause major loss of environmental amenity (as detailed in dot points above).	**High**
Post-mitigation	**Unlikely –** with adequate monitoring as per section 4, under grazing leading to increased fuel loads is unlikely to occur.	**High –** should under grazing occur, this would cause substantial instances of environmental damage, however this would be detected quickly with the monitoring outlined in Section 4, therefore would be able to be reversed with intensive efforts.	**Medium**

7.1.3 Biosecurity

Almost anything moved onto a property can be a potential source of pests and diseases for livestock, plants and wildlife (Animal Health Australia, 2026; DAFF, 2025). The introduction of new pests and diseases onto a property can have the following consequences as they relate to the protected MNES (according to the relevant statutory documentation) on the Offset Property on the Offset Property:

- Introduction of new weed species that spread throughout the Offset Property and contribute to a decline in overall Habitat Quality; and
- Introduction of zoonotic diseases or parasites which could injure or be fatal to protected MNES.

Whilst some zoonotic pests, pathogens and parasites may have historically originated from livestock (i.e. chlamydia in koalas (Quigley & Timms, 2020)), Australia has relatively strong biosecurity and livestock health controls which has limited any new major disease outbreaks originating from livestock. As well as this, as detailed in Section 3.1, any livestock lessee who wishes to have their livestock on the Offset Property must adhere to the Biosecurity Management Plan that is in place for the property which seeks to reduce the risk of introduced pest and diseases.

The assessment of biosecurity risks within the Offset Property without mitigation is that the occurrence is possible and consequences of such an event would be minor (reasoning detailed in Table 13). The assessment of biosecurity risks without intervention and management is evaluated as a low risk to all offsets (Table 13). The management actions that are proposed to be implemented to reduce this initial risk rating are outlined throughout Section 4. With the implementation of all relevant

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

management actions as well as the adherence to the Biosecurity Management Plan, the likelihood is reduced to unlikely, with the consequence remaining as minor, keeping the risk rating as low (Table 13).

Table 13: Overgrazing risk assessment

Mitigation status	Likelihood - discussion	Consequence - discussion	Risk Rating
Pre-mitigation	**Possible –** most livestock, machinery and equipment entering the property are/is already done so under a Biosecurity Management Plan which is basic farm practice therefore the likelihood of introduced pest, parasites or pathogens coming onto the property is possible.	**Minor** – whilst the introduction of livestock onto a property has the potential to introduce pests, parasites or pathogens, many of these are already well documented in Australia and are already distributed throughout wildlife populations therefore the consequence would be minor.	**Low**
Post-mitigation	**Unlikely –** with further scrutiny placed on the biosecurity of incoming animals, machines and equipment, the possibility of introducing pest, parasites or pathogens is unlikely.	**Minor –** if a pest, parasite or pathogen was introduced to the Offset Property after mitigation measures, then the consequence would still be minor.	**Low**

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

8 Review and Reporting

8.1 Review of the LMP

This LMP will be reviewed and if required updated annually for the first three years by the Offset Provider. As further offsets are approved on the Offset Property, the LMP will be updated in this time with details of these including any specific livestock conditions. Following this, the LMP will be reviewed every 5 years.

8.2 Annual reporting

Activities and outcomes undertaken in accordance with this LMP will be included in the annual OMP Offset Area Assessment Reports prepared by the Offset Provider. The reporting requirements for the Offset Area is detailed within the OMP, however the following basic information will be included:

- Details of all grazed areas within the Offset Property including:
    - Number and type of livestock within grazed area
    - Number of days the area was grazed
    - Entry and exit dates
    - Entry and exit fuel hazard assessment ratings; and
    - Any corrective actions implemented if relevant.
- Monitoring data relevant to grazing outcomes, including recruiting height tree monitoring data; and
- Records of any changes in grazing management approach.

All records will be maintained in a clear, auditable, and dated format. Records will be retained for the duration of the monitoring and management period (minimum 20 years, or as otherwise required under the OMP and approval conditions).

Records will be made available to the regulator upon request for the purposes of auditing, compliance checks, or review.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

9 Conclusion

This LMP provides a practical framework for managing low intensity grazing across the Offset Property, primarily as a tool for fuel load reduction. It supports the OMP, which defines performance targets, monitoring requirements, and compliance obligations. Where any inconsistency arises, the OMP prevails.

Grazing is an optional management tool and will only be implemented where it supports fuel load reduction without compromising biodiversity outcomes. The LMP includes defined controls, monitoring, and trigger-based responses to ensure any impacts to vegetation condition, recruitment, fuel loads, or habitat quality are identified and addressed. Where grazing is not suitable, alternative measures such as prescribed burning will be used.

The use of controlled grazing is considered a manageable risk, particularly in the context of bushfire. Without active fuel load management, there is a higher risk of high-intensity fire causing significant ecological damage. In this context, grazing provides a proactive means of reducing fuel loads while maintaining the long-term ecological integrity of the Offset Property.

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

REFERENCES

Animal Health Australia. (2026). *Farm Biosecurity*. https://www.farmbiosecurity.com.au/

Australian Bureau of Meteorology, & CSIRO. (2020). *State of the Climate 2020*. http://www.bom.gov.au/state-of-the-climate/2020/

Clark, P. E., Porter, B. A., Pellant, M., Dyer, K., & Norton, T. P. (2023). Evaluating the Efficacy of Targeted Cattle Grazing for Fuel Break Creation and Maintenance. *Rangeland Ecology & Management, Reducing Frequent and Catastrophic Wildfires in Sagebrush Rangelands of the Great Basin*, *89*, 69–86. https://doi.org/10.1016/j.rama.2023.02.005

Davies, K. W., Wollstein, K., Dragt, B., & O'Connor, C. (2022). Grazing management to reduce wildfire risk in invasive annual grass prone sagebrush communities. *Rangelands, Changing with the Range: Striving for Ecosystem Resilience in the Age of Invasive Annual Grasses*, *44*(3), 194–199. https://doi.org/10.1016/j.rala.2022.02.001

Department of Agriculture, Fisheries and Forestry (DAFF). (2003). *Tree measurement manual for farm foresters*. https://www.agriculture.gov.au/sites/default/files/documents/Abed_Stephens_Tree_Measurement_Manual_2003.pdf

Department of Agriculture, Fisheries and Forestry (DAFF). (2025, November 28). *Animal pests and diseases*. https://www.agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/animal

Department of Agriculture, Fisheries and Forestry (DAFF), D. (2013). *Pasture management for South East Queensland*. https://futurebeef.com.au/wp-content/uploads/SEQ-pasture-sml.pdf

Department of Agriculture, Water and the Environment (DAWE). (2022, February 12). *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory*. chrome-

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.environment.gov.au/biodiversity/threatened/species/pubs/85104-conservation-advice-12022022.pdf

Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2021). *National Recovery Plan for the Grey-headed Flying-fox Pteropus poliocephalus*. https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/recovery/grey-headed-flying-fox

Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2022, July 5). *Conservation Advice for Petauroides volans (greater glider (southern and central))*. Department of Climate Change, Energy, the Environment and Water (DCCEEW). https://www.environment.gov.au/biodiversity/threatened/species/pubs/254-conservation-advice-05072022.pdf

Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2024). *Environmental management plan guidelines*. https://www.dcceew.gov.au/sites/default/files/documents/environmental-management-plan-guidelines.pdf

Department of Environment and Heritage Protection (DEHP). (2017). *Guide to determining terrestrial habitat quality Version 1.2*. https://environment.des.qld.gov.au/__data/assets/pdf_file/0015/90312/habitat-quality-assessment-guide.pdf

Department of Environment, Science, Information Technology, Innovation and the Arts (DETSI), P. J. (2014). *Eucalypt woodlands: Regrowth Benefits—Management Guidelines*. Department of Science, Information Technology, Innovation and the Arts. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.qld.gov.au/__data/assets/pdf_file/0034/68875/eucalypt-woodlands-management-guideline.pdf

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Department of Primary Industries and Fisheries (DPI&F). (2007, March). *Using fire in spotted gum—Ironbark forests for production and biodiversity outcomes: Guidelines for landholders*. https://era.dpi.qld.gov.au/id/eprint/3562/2/fire_guidelines_March_2007_final_compressed%5B1%5D-sec.pdf

Dowdy, A. J. (2020). Seamless climate change projections and seasonal predictions for bushfires in Australia. *Journal of Southern Hemisphere Earth Systems Science*, *70*(1), 120–138. https://doi.org/10.1071/ES20001

Earl, J., & Jones, C. (1996). The need for a new approach to grazingmanagement: Is cell grazing the answer? *Rangeland Journal*, *18*, 327–350.

Hines, F., Tolhurst, K. G., Wilson, A. A., & McCarthy, G. J. (2010, July). *Overall fuel hazard assessment guide—4th edition*. Victorian Government Department of Sustainability and Environment Melbourne. https://www.ffm.vic.gov.au/__data/assets/pdf_file/0005/21110/Report-82-overall-fuel-assess-guide-4th-ed.pdf

Martin, T. G., & McIntyre, S. (2007). Impacts of livestock grazing and tree clearing on birds of woodland and riparian habitats. *Conservation Biology: The Journal of the Society for Conservation Biology*, *21*(2), 504–514. https://doi.org/10.1111/j.1523-1739.2006.00624.x

Martin, T. G., & Possingham, H. P. (2005). Predicting the impact of livestock grazing on birds using foraging height data. *Journal of Applied Ecology*, *42*(2), 400–408. https://doi.org/10.1111/j.1365-2664.2005.01012.x

McIntyre, S., Heard, K. M., & Martin, T. G. (2003). The relative importance of cattle grazing in subtropical grasslands: Does it reduce or enhance plant biodiversity? *Journal of Applied Ecology*, *40*, 445–457.

Meat & Livestock Australia (MLA). (2024). *Module 4: Stop grazing*. https://mbfp.mla.com.au/pasture-utilisation/4-stop-grazing-before-pasture-regrowth-potential-is-affected/

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Meat & Livestock Australia (MLA). (2025). *Grazing strategies*. https://www.mla.com.au/research-and-development/Grazing-pasture-management/native-pasture/grazing-management/grazing-strategies/

Phal, L. (2020). Macropods, feral goats, sheep and cattle—Equivalency in what and where they eat. *Rangeland Journal*, *41*(6), 519–533. https://doi.org/10.1071/RJ19059

Pillar, V. D., & Overbeck, G. E. (2025). Grazing can reduce wildfire risk amid climate change. *Science*, *387*(6730), eadu7471. https://doi.org/10.1126/science.adu7471

Queensland Herbarium. (2018). *Regional ecosystems technical descriptions—South East Queensland*. corporateName=The State of Queensland; jurisdiction=Queensland. https://www.publications.qld.gov.au/dataset/re-technical-descriptions/resource/1771f391-44b9-4d25-8315-f92033610a9b

Quigley, B. L., & Timms, P. (2020). Helping koalas battle disease – Recent advances in Chlamydia and koala retrovirus (KoRV) disease understanding and treatment in koalas. *FEMS Microbiology Reviews*, *44*(5), 583–605. https://doi.org/10.1093/femsre/fuaa024

Ratcliff, F., Rao, D. R., Barry, S. J., Dewees, S., Macaulay, L., Peterson, R., Moritz, M. A., & Forero, L. C. (2022). Cattle grazing reduces fuel and leads to more manageable fire behavior. *California Agriculture*, *76*(2–3). https://doi.org/10.3733/ca.2022a0011

Sanford, P., Cullen, B. R., Dowling, P. M., Chapman, D. F., Garden, D. L., Lodge, G. M., Andrew, M. H., Quigley, P. E., Murphy, S. R., King, W. M. G., Johnston, W. H., & Kemp, D. R. (2003). SGS Pasture Theme: Effect of climate, soil factors and management on pasture production and stability across the high rainfall zone of southern Australia. *Australian Journal of Experimental Agriculture*, *43*(7–8). https://findanexpert.unimelb.edu.au/scholarlywork/258590-sgs-pasture-theme--effect-of-climate--soil-factors-and-management-on-pasture-production-and-stability-across-the-high-rainfall-zone-of-southern-australia

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Schachtschneider, C. L., Strand, E. K., Launchbaugh, K. L., & Jensen, S. (2024). Targeted Cattle Grazing to Alter Fuels and Reduce Fire Behavior Metrics in Shrub-Grasslands. *Rangeland Ecology & Management*, *96*, 105–116. https://doi.org/10.1016/j.rama.2024.05.010

Sharples, J. J., Cary, G. J., Fox-Hughes, P., Mooney, S., Evans, J. P., Fletcher, M.-S., Fromm, M., Grierson, P. F., McRae, R., & Baker, P. (2016). Natural hazards in Australia: Extreme bushfire. *Climatic Change*, *139*(1), 85–99. https://doi.org/10.1007/s10584-016-1811-1

Wildlife Friendly Fencing. (2026). Electric. *Safe and Effective for Wildlife, People and Livestock*. https://wildlifefriendlyfencing.org/friendly-fencing/electric-fencing/

WIRES. (2026). *Wildlife Friendly Fencing*. https://www.wires.org.au/what-we-do/wildlife-information/general-information/wildlife-friendly-fencing

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

APPENDIX A SUITABLY QUALIFIED ECOLOGIST CV

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.

Jacqui Castor

Biodiversity Project Manager

jacqui.castor@koalafarmlandfund.com.au

Jacqui has over six years of hands-on experience as an ecologist, spending much of her career out in the field doing flora and fauna habitat assessments. Jacqui has worked across Queensland on a wide range of projects, offering ecological advice to clients in industries like transport, defence, renewables, mining, and local government.

Jacqui has a strong background in writing ecological assessment reports, significant impact assessments, species management plans, and environmental monitoring programs. In recent years, her focus has been on biodiversity offset projects, working with some of the biggest mining, gas, and renewables companies across Australia. With a solid understanding of both state and federal environmental policies, Jacqui continues to stay across changes as the industry evolves.

Now working with Koala Farmland Fund, Jacqui is gaining experience in the implementation of offset management plans, land management practices and restoration. Jacqui is bringing her experience as an ecologist to Koala Farmland Fund to ensure we pick robust offset sites that achieve great environmental outcomes.

Qualifications & Certifications

- Bachelor's degree, Zoology /Animal Biology, 2015, University of New England
- Graduate Certificate of Environmental Science, 2015 – University of New England
- Science Honours, Zoology/Animal Biology, 2018, University of New South Wales

Career Summary

Biodiversity Project Manager	2025-Present
Senior Ecologist – E2M Consulting	2024-2025
Ecologist – E2M Consulting	2020-2024
Ecologist – Subcontractor	2019-2020
Animal Technician UNSW	2017-2019

Key Project Experience

- Koala Farmland Fund (QLD), Biodiversity Project Manager (2025 - present): Project management of the fund's biodiversity offset portfolio including on-ground implementation and ongoing monitoring requirements of multiple EPBC Act Offset Area Management Plans (OAMPs).

- Origin Energy (QLD), E2M Consulting – Senior Project Manager – Responsible for the delivery of annual ecological monitoring and reporting services across the full Australia Pacific LNG project area.
- Rolleston Coal Mine (QLD), E2M Consulting – Project Lead - Lead comprehensive ecological surveys and assessments to meet both State and Federal regulatory requirements. This involved offset evaluations, habitat quality surveys, MNES impact assessments, and preparation of Offset Area Management Plans (OAMPs), as well as inputs for an EA amendment application and a Public Environment Report.
- Origin Energy (QLD), E2M Consulting – Biodiversity Offsets Lead – Responsible for producing detailed offset suitability assessments that assist Origin Energy in strategic planning and decision-making with regards to offsets for future development packages.
- Queensland Government SuperGrid project – E2M Consulting – Biodiversity Offsets Lead - Project technical expert for biodiversity offset delivery strategy including identification of suitable offset properties through habitat modelling as well as delivery of Offset Management Plans.
- Genex Kidston Connection Project (QLD) - E2M Consulting – Project Lead - Leading ecological field surveys across a potential offset property, including habitat quality assessments to determine its potential to offset significant residual impacts on three nationally threatened species. Following this, the development of an Offset Area Management Plan and subsequent ongoing monitoring of the offset.

APPENDIX B FUEL HAZARD MONITORING PROFORMA

Assessment information					
Date assessed					
Sampling location (paddock and/or offset area)					
Plot number					
Assessor					
Start date of grazing event					
Near-surface fuel layer (10m radius)					
Near-surface % Cover:					
Near-surface % Dead					
NS Ave Height (cm):					
NS Fuel Hazard:	L	M	H	VH	E

© Upscale Capital Pty Ltd ATF Koala Farmland Fund 2. All rights reserved.