

Cumner Road Subdivision, White Rock, Ripley Valley, Queensland

(EPBC 2014/7388)

Compliance Report

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Executive Summary

Key points in this reporting period:

- The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)-approved action management has commenced, with approximately 70% of the total urban development footprint cleared of vegetation.
- The Conservation Area Management Plan (CAMP) associated with the project is in year 6, with data collection and reporting completed for:
 - Native vegetation and weeds (managed under the Conservation Area Management Plan)
 - Pest animals (managed under the Pest Management Plan)
 - Koala (*Phascolarctos cinereus*) management.
- Year 6 surveys within the project's offset area were conducted in 2025, and found:
 - The coverage of Lantana (*Lantana camara*, *L. montevidensis*) has decreased. The recorded spatial distribution of *L. camara* has reduced from 20 sites in 2021 (baseline), to 18 sites in 2025. The spatial distribution of *L. montevidensis* has increased from nine sites in 2021 (baseline), to ten sites in 2025.
 - Vegetation condition has improved at three sites and remained stable at another three sites compared to 2024 surveys. Native forb and grass diversity, and perennial grass cover, vary in comparison to 2024 monitoring.
 - 8.65 ha (3.46%) of the Conservation Area was subject to fire management.
- The legal securing of Zone 1 and Zone 2 is overdue (due 16/2/2024), three years from the date of the varied approval; however, this will not prevent the continued management of the Conservation Area in a manner consistent with the CAMP.
 - The legal security process is in progress for Zone 1. Voluntary Declarations (VDecs) under the *Vegetation Management Act 1999* have been applied for two of the three lots within Zone 1 (Lot 2 SP339186 and Lot 80 SP346894). The proponent is awaiting a response from the Qld Government confirming the VDECs are finalised. The legal securing of the final lot (Lot 174 S31238) within Zone 1 will occur as soon as possible.
 - Zone 2 is overdue as the location of the proposed water infrastructure in this zone (the hammer-shaped area that has been excluded from the northern part of the CAMP area, Figure 1) is currently being amended due to Queensland Urban Utilities design requirements. As the updated water infrastructure design may impact the offset area established for this action, a VDec cannot be prepared until the design is finalised. It is likely that the proponents will soon seek amendments to the offset area, with adequate compensation, to allow the water infrastructure to be built. Once this is complete, the required VDec can be established for Zone 2, and this zone can be legally secured.
- The project complies with the EPBC Act approval, with the exception of two issues (presence of *Canis lupus familiaris* and *Vulpes vulpes* has increased and; overdue legal securing of Zone 1 and 2 via VDec).

1 Introduction

On December 3, 2019, the Cumner Road subdivision, White Rock, Ripley Valley, Queensland (EPBC 2014/7388) was approved under sections 130(1) and 133(1) of *the* EPBC Act. The approved action is the development of a mixed-use subdivision zone and associated infrastructure, and environmental protection on Cumner Road, White Rock, Queensland.

The action commenced on 03 December 2019. The following report details progress of the action for the period 03 December 2024 to 03 December 2025 (Year 6) and is provided to meet the annual compliance reporting requirement within condition 10 of the Approval Notice.

Condition 10 of the EPBC Act approval states:

“10. The approval holder must prepare a compliance report for each 12-month period following the date of commencement of the action, or as otherwise agreed to in writing by the Minister. The approval holder must:

- a. publish each compliance report on the website within 60 business days following the relevant 12 month period;*
- b. notify the Department by email that a compliance report has been published on the website within five business days of the date of publication;*
- c. keep all compliance reports publicly available on the website until this approval expires;*
- d. exclude or redact sensitive ecological data from compliance reports published on the website;*
- and*
- e. where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the department within 5 business days of publication. “*

This report provides a summary to meet Condition 10 above. It also provides a summary of actions and compliance pertaining to the EPBC2014/7388 approval for year 6.

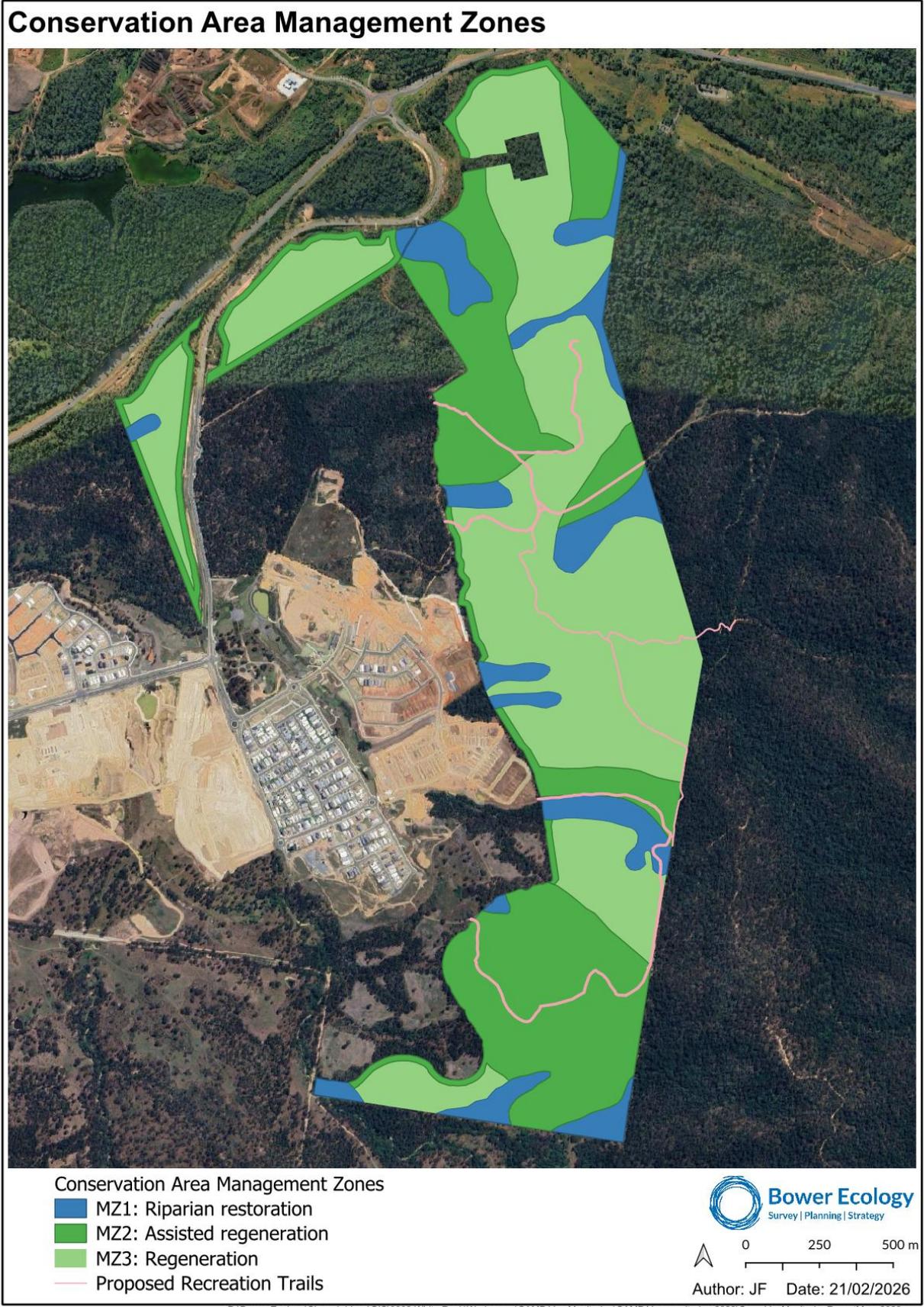


Figure 1: CAMP Management Zones

2 Progress of the action (EPBC 2014/7388)

Progress is reported against the Approval Conditions and associated performance criteria within Table 1, Table 2, and Table 3 below.

Due to the Coronavirus pandemic in 2020, delays occurred in works related to the CAMP. In February 2021 a variation to the initial approval was approved. This approved variation allowed postponement of CAMP actions with an adjusted schedule provided within the approval.

Climatic conditions during 2025 put limits upon management works that could be undertaken. Periods of higher-than-average rainfall limited access to the more remote areas of the site, thus impacting the weed, revegetation and pest management works achievable.

Table 1: Response to the condition in Attachment A of the EPBC Act approval for EPBC 2014/7388

Part A - Conditions specific to the action	
Condition	Comments
<p>1. For the protection of the Koala and the Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>), the approval holder must not clear Koala habitat and Grey-headed Flying-fox foraging habitat outside the area marked as the Development Footprint, enclosed by the red lines, as shown on the map at Attachment A.</p>	<p>Compliant with the exception of some management of vegetation along the fenceline which delineates the edge of the Development Footprint. Arborist-directed management for the longevity and safety of adjacent infrastructure and occupants was conducted. This involved individually assessing vegetation within approximately one meter of the interface between the Development Footprint and Conservation area. Vegetation was assessed for likely health and habit into the future, with minor amounts of unsafe vegetation removed, under arborist advice.</p>
<p>2. To compensate for the clearing of 146.02 hectares of Koala habitat and Grey-headed Flying-fox foraging habitat, the approval holder must:</p> <ol style="list-style-type: none"> Legally secure the Conservation Management Area. Provide the Department with evidence of the registration of legal security of the Zone 1 of the Conservation Management Area, within 3 years of the date of this approval. Provide the Department with evidence of the registration of legal security of Zone 2 of the Conservation Management Area within 5 years of the date of this approval. Commence implementation of the Conservation Area Management Plan, within 30 days of the date of this approval. The performance and completion criteria set out in Tables 1 and 2, at Attachment B (of the approval) must be achieved. 	<p>a) For Zone 1: The legal security process is in progress. Application to the Qld Government have been submitted for two of the 3 lots within Zone 1 (Lot 2 SP339186 and Lot 80 SP346894) – with VDEC finalisation imminent (upon acceptance by the Qld Government). The legal securing of the final lot (Lot 174 S31238) within Zone 1 will occur as soon as possible.</p> <p>For Zone 2: The location of the proposed water infrastructure in this zone (the hammer-shaped area that has been excluded from the northern part of the CAMP area) is currently being amended due to Queensland Urban Utilities design requirements. As the updated water infrastructure design may impact the geometry of the offset area established for this action, a VDec cannot be prepared until the design is finalised. It is likely that the proponents will soon seek amendments to the offset area, with adequate compensation, to allow the water infrastructure to be built. Once this is complete, and subject to approval of modifications to the EPBC Act offset area, the required VDec can be established for Zone 2, and this zone can be legally secured.</p> <p>Dependency b. and c. held until legal security obtained.</p>

	<p>d) Compliant, as per the year 3 compliance report.</p> <p>e) In progress.</p>
<p>3. The approval holder must not commence the action until the approval holder has commenced implementation of the CAMP.</p>	<p>Compliant.</p> <p>The CAMP was commenced in September of 2019 with the undertaking of baseline Koala surveys per the Koala Management Plan (KMP). The approval holder commenced the action on 4/12/2019 with the initial works related to the road corridor for the Cumner Road extension. The department was notified of the commencement of the action on 11/12/2019 via email.</p>
<p>4. The approval holder must implement the KMP.</p>	<p>Compliant.</p> <p>KMP implemented. The KMP requires biennial surveys. Koala surveys were undertaken in 2023 and 2025. The next monitoring will occur approximately September 2027.</p>
<p>Part B - Standard administrative conditions</p>	
<p>Notification of date of commencement of the action</p> <p>5. The approval holder must notify the Department in writing of the date of commencement of the action and the date of commencement of construction within 10 business days after the date of commencement of the action or commencement of construction respectively.</p>	<p>Compliant.</p> <p>The approval holder commenced the action on 4/12/2019 with the clearing of the road corridor for the Cumner Road extension. The department was notified of the commencement of the action on 11/12/2019 via email.</p>
<p>6. If the commencement of the action does not occur within 5 years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.</p>	<p>N/A. The action has commenced.</p>
<p>Compliance records</p> <p>7. The approval holder must maintain accurate and complete compliance records.</p>	<p>Compliant.</p> <p>Accurate and complete compliance records have been maintained.</p>
<p>8. If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.</p> <p>Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.</p>	<p>No request has been received.</p>
<p>Preparation and publication of plans. The approval holder must:</p> <p>9.</p>	<p>Compliant.</p> <p>All approved plans can be found at:</p>

<ul style="list-style-type: none"> a. submit plans electronically to the Department for approval by the Minister; b. publish each plan on the website within 20 business days of the date of this approval or the date that the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister or the Department, unless otherwise agreed to in writing by the Minister; c. exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public; and d. keep plans published on the website until the end date of this approval 	<p>https://intrapac.com.au/ripley/No sensitive ecological data is contained within the plans.</p>
<p>Annual compliance reporting</p> <p>10. The approval holder must prepare a compliance report for each 12 month period following the date of commencement of the action, or as otherwise agreed to in writing by the Minister. The approval holder must:</p> <ul style="list-style-type: none"> a. publish each compliance report on the website within 60 business days following the relevant 12 month period; b. notify the Department by email that a compliance report has been published on the website within five business days of the date of publication; c. keep all compliance reports publicly available on the website until this approval expires; d. exclude or redact sensitive ecological data from compliance reports published on the website; and e. where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within 5 business days of publication. Note: Compliance reports may be published on the Department's website. 	<p>See above.</p> <p>This document is the compliance report for the sixth 12-month period (Year 6) period following the commencement of the action.</p>
<p>Reporting non-compliance</p> <p>11. The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:</p> <ul style="list-style-type: none"> a. the condition which is or may be in breach; and b. a short description of the incident and/or non-compliance 	<p>Two matters are relevant:</p> <ol style="list-style-type: none"> 1. Numbers of the pest species Wild Dog and Fox recorded in 2025 were higher than the baseline. Numbers of both species were also higher in the Conservation Management Area than in the reference sites within the White Rock Conservation Estate. While reasons for this are unclear, it could be attributed to both the disturbance of construction works in adjacent habitat areas and the resulting displacement of animals into the Conservation Area and WRSMCE, and climatic conditions leading to an increase in resource availability across the monitoring site (see Table 2 and section 3.5). This increase in Wild Dog and Fox numbers is considered a non-compliance. Measures to mitigate this non-conformance is provided in Section 3.5. 2. Refer to previous discussion about the legal securing of the land in Condition 2.
<p>12. The approval holder must provide to the Department the details of any incident or non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the</p>	<p>As above.</p>

<p>incident or non-compliance, specifying:</p> <ul style="list-style-type: none"> a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future; b. the potential impacts of the incident or non-compliance; <p>and</p> <ul style="list-style-type: none"> c. the method and timing of any remedial action that will be undertaken by the approval holder. 	
<p>Independent audit and independent Scientific Outcomes</p> <p>13. The approval holder must ensure that independent audits of compliance with the conditions and/or Independent Scientific Verification of Outcomes are conducted as requested in writing by the Minister.</p>	<p>N/A. No independent audits were requested by the Minister within the reporting year.</p>
<p>14. For each independent audit, the approval holder must:</p> <ul style="list-style-type: none"> a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department; b. only commence the independent audit once the audit criteria have been approved in writing by the Department; and c. submit an audit report to the Department within the timeframe specified in the approved audit criteria. 	<p>N/A. No independent audits were conducted within the reporting year.</p>
<p>15. For each Independent Scientific Verification of Outcomes the approval holder must:</p> <ul style="list-style-type: none"> a. provide the name and qualifications of the independent suitably qualified field ecologist and the draft brief to the Department; b. only commence the independent Scientific Verification of Outcomes once the independent suitably qualified field ecologist and the brief have been approved in writing by the Department; and c. submit an independent suitably qualified field ecologist's report to the Department within the timeframe specified in the approved brief. 	<p>N/A. No independent scientific verification of outcomes occurred within the reporting year.</p>
<p>16. The approval holder must publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit report published on the website until the end date of this approval.</p>	<p>N/A. No independent audits were conducted within the reporting year.</p>
<p>Completion of the action</p> <p>17. Within 30 days after the completion of the action, the approval holder must notify the Department in writing and provide completion data</p>	<p>N/A. The action has not been completed.</p>

Table 2: Compliance criteria (Attachment B Table 1 of EPBC approval)

Task	Establishment			Maintenance	Progress within Year 6 (03/12/2024 to 03/12/2025) * only progress toward preliminary management actions (highlighted green) are addressed within this compliance report as the reporting period (Year 6) is relevant to these only.
	Preliminary	Management			
	By end of year 3	Between end of year 3 and end of year 10	Year 11	Years 12-21	
Construction-related management actions					
Fencing / signage / (and maintenance) relating to Koala and GHFF management	Infrastructure installed.	No more than 5% of fencing compromised at any time			Fencing / signage / (and maintenance) relating to Koala and GHFF management has not yet commenced along the eastern edge of the mixed-use development area. Nonetheless, all Koala fencing has been completed along Sandstone Boulevard (the new road constructed as part of the action).
Sediment and erosion control (and maintenance)	Sediment / erosion works installed	Sediment and erosion control devices checked and repaired annually in Quarter 1			Sediment and erosion work required regarding the clearing of the Cumner Rd extension have been installed and maintained as part of the Construction Environmental Management Plan. Construction Contractor reporting on this is available upon request.
Bushland management actions					

Task	Establishment			Maintenance	Progress within Year 6 (03/12/2024 to 03/12/2025) * only progress toward preliminary management actions (highlighted green) are addressed within this compliance report as the reporting period (Year 6) is relevant to these only.
	Preliminary	Management			
	By end of year 3	Between end of year 3 and end of year 10	Year 11	Years 12-21	
Fire Management	Bush fire management plan (BFMP) completed. Fire management works undertaken as specified in the BFMP.	Fire management works undertaken as specified in the BFMP			Fire management burns were undertaken on 8.65 ha of the Conservation Area (3.46 %) (Appendix A).
Pest fauna management	<p>Two survey events completed to determine the baseline of dogs / cats / foxes within the Conservation Management Area and reference sites within the adjacent White Rock Conservation Estate Area.</p> <p>Development of a pest management plan that specifies how feral dogs, cats and foxes will be reduced in the conservation Management Area</p> <p>Development of a survey methodology that is sufficient to demonstrate any reduction of feral dogs, cats and foxes in the Conservation Management Area, relative to the baseline and reference sites within the adjacent White Rock conservation Estate Area.</p>	Between end of year 3 and end of year 6, no increase in pests against baseline, or, in the event of evidence of an increase of pests in the general area as measured at reference sites within the White Rock Conservation Estate Area, then demonstrated reduction in pests relative to these reference sites, measured annually.	From beginning of year 7 to end of approval, maintain a reduction in pests relative to baseline, measured annually, or in the event of evidence of an increase of pests in the general area, as measured at reference sites within the White Rock Conservation Estate Area, then demonstrated reduction relative to these reference sites, measured annually.	<p>Two survey events (Autumn and Spring 2025) were undertaken to track pest management progress against baseline reports. The 2025 Pest Management Report can be found in Appendix B. The abundance of two out of the four target pest species (Feral Cats and Feral Pigs) was shown to have reduced in comparison to the baseline. 2025 records of Wild Dogs and Foxes, however, were greater than those recorded during baseline monitoring; 2025 counts were higher in the Conservation Management Area than in the White Rock Conservation Estate for both Wild Dogs and Foxes. Number of both species recorded in the Conservation Management Area in 2025 (5 dogs and 6 foxes recorded) were higher than the baseline. 2025 counts within the White Rock Conservation Estate were higher than the baseline for Wild Dogs (2 animals) and the same as the baseline for Foxes (2 animals).</p> <p>While reasons for this increase are unclear, it could be attributed to both the disturbance of construction works in adjacent habitat areas and the resulting displacement of animals into the Conservation Area and WRSME, and climatic conditions leading to an increase in resource availability across the monitoring site.</p> <p>Regardless, the increase in Wild Dog and Fox numbers relative to the baseline presents a non-compliance which will be addressed by increasing the management efforts to reduce Wild Dog and Fox populations in ongoing pest management.</p>	

Task	Establishment			Maintenance	Progress within Year 6 (03/12/2024 to 03/12/2025) * only progress toward preliminary management actions (highlighted green) are addressed within this compliance report as the reporting period (Year 6) is relevant to these only.
	Preliminary	Management			
	By end of year 3	Between end of year 3 and end of year 10	Year 11	Years 12-21	
Bushfire/recreation trails (and maintenance)	Fire access tracks established	At a minimum, bushfire management trails drivable at least one month prior to fire season as determined in BFMP. No more than 10% of designated multipurpose trails unwalkable at any time.			Existing fire access trails have been maintained as part of access requirements for the ongoing revegetation works.
Revegetation requirements assessed	Revegetation requirements assessed every year prior to planting season until Year 8			n/a	General revegetation requirements are completed. Threatened species plantings (<i>Melaleuca irbyana</i>) are scheduled to be completed by the end of February 2026.

Table 3: Completion criteria (Attachment B, Table 2 of the EPBC Act approval)

Completion Criteria	Relevant to Year 11	Relevant to Year 21	Comments
1. Both Zones 1 and 2 of the conservation area have been legally secured, ensuring protection for conservation purposes, within 5 years of date of the approval.	✓	✓	Not complete. See notes in Table 2.
2. With exception of minor initial works, bushland management actions commenced within 3 years of the date of the approval.	✓	✓	Commenced.
3. Documented increase in Koala and GHFF habitat value, as shown in an assessment against the management objectives of table 4 of the CAMP.	✓	✓	N/A for the Year 6 period.

4.	All revegetation (planting works) completed by the end of year 11, with planted tree species comprising predominantly Koala food trees (including Forest Red Gum and Grey Gum) and winter foraging species for the GHFF (Broad-leaved Paperbark, Spotted Gum, Swamp Mahogany and Forest Red Gum).	✓	N/A	N/A for the Year 6 period.
5.	Minimum 90% survival rate of revegetation or equivalent stem density (i.e. due to natural regeneration) by end of year 11.	✓	N/A	N/A for the Year 5 period.
6.	All management zones contain primary Koala food trees and GHFF winter foraging trees in good health by end of year 11 and for the remaining duration of the approval.	✓	✓	N/A for the Year 6 period.
7.	Across the planting area, tree canopy cover % within each management zone meets regional ecosystem benchmarks by end of year 11, 16 and 21, as defined by the Queensland Government's BioCondition Benchmarks for Regional Ecosystem Condition Assessment (2019).	✓	✓	N/A for the Year 6 period.
8.	By end of year 11, a density of at least 20 overstory trees (comprising Koala food trees and winter foraging resource trees for GHFF) and 250 mid or understory trees and/or shrubs per hectare will be present and maintained for the duration of the approval.	✓	✓	N/A for the Year 6 period.
9.	By end of year 11 rehabilitation and management results in vegetation communities that meet the descriptions of pre-existing and/or surrounding remnant regional ecosystem types and these are maintained for the duration of the approval.	✓	✓	N/A for the Year 6 period.

3 Summary of Management Actions

The CAMP stipulates annual reporting on five key attributes:

- a summary of management actions
- results of any vegetation monitoring
- results of any Koala monitoring
- report on actions to support the bushfire management plan
- actions to support the pest management plan.

Attached to this document are detailed reports from relevant contractors within each action, and a summary of actions and results (Sections 3.1 to 3.5). Relevant reports are attached in the appendices (Appendix A, Appendix C, and Appendix D).

3.1. Management Action Report

Evolve Environmental Solutions were contracted to conduct weed treatment and pest management works. The following weed management works, as detailed in Appendix D were completed in 2025:

- 23.7 ha of secondary weeding work in zones 1, 2, and 3 in January to March.
- 2.25 ha of grasses slashed and sprayed in burn areas 6 and 7 in April to June.
- 1.2 ha of lantana slashed in burn area 11 in April to June.
- 3.5 ha of lantana slashed and sprayed in burn area 9 in July.
- 0.7 ha of secondary weeding in burn areas 11 and 12 in August.
- 2.35 ha of follow up spraying in burn areas 6, 7, 9, 11, and 12 in September.

Treatment areas are mapped in Figure 2, Figure 3, and Figure 4.

Various pest management works were employed by subcontractor Invasive Plant and Animal Services throughout the reporting year: trapping, shooting, 1080 baiting, and deployment of remote cameras to monitor pest species (Appendix C).

Fireland was contracted in 2023 to conduct bushfire management works. In the 2025 reporting year, 3.46% of the total CAMP area was burned with low-moderate intensity fires (Appendix A). Areas burnt are mapped in Figure 9 and Figure 10

3.2. Vegetation Monitoring

The CAMP stipulates that vegetation will be improved in three unique zones, each with their own actions:

- MZ1: Riparian restoration over a total of 30 ha along drainage lines
- MZ2: Assisted regeneration of 91 ha through control of *L. camara* and other invasive species
- MZ3: Regeneration of the remaining 128 ha through minor weed works.

As detailed in the 2025 Vegetation Monitoring Report (Appendix E), a total of six BioCondition surveys were conducted within the CAMP Area in June 2025 (Figure 5 and Table 4).

BioCondition assessment sites BC1, BC2, and BC5 all improved in condition in comparison to the previous monitoring event (2024). The BioCondition class recorded for site BC2 is higher than that recorded for any site since monitoring commenced, indicating vegetation in a functional biodiversity condition. The BioCondition class recorded at the remaining three sites (BC3, BC4, and BC6) was consistent with the previous monitoring event in 2024.

The improvement in condition at site BC1, BC2 and BC5 can be attributed to:

- natural regeneration over time, in conjunction with management actions.
- occurrence of ex-Tropical Cyclone Alfred which brought heavy rainfall and high winds to Southeast Queensland in March 2025
- the improvement in habitat traits such as litter and woody debris.

Percent foliage cover of both *Lantana* species was lower than both the previous monitoring event and the baseline result. The mean cover of *L. camara*, calculated from the results of the 20 assessment sites has decreased from 41.8% at baseline, to 4.64%. This is the lowest record since monitoring commenced. The mean cover of *L. montevidensis* is also decreasing. The highest mean coverage of *L. montevidensis* (12.3%) was recorded during baseline surveys, while 2025 results show a mean coverage of 3.32%.

Spatial distribution of both *Lantana* species has fluctuated slightly over time. Nonetheless, since weed management works commenced, the coverage of both species of *lantana* has declined significantly. *Lantana camara* was recorded at 18 out of 20 sites during 2025 monitoring; this is the same number of sites at which this species was recorded in the previous monitoring event, and two sites less than the number at which this species was recorded during baseline surveys. *Lantana montevidensis* was recorded at 10 sites; this is two sites less than the number at which this species was recorded in the previous monitoring event, but one more site than the number at which it was recorded during baseline surveys.

The reduction in *Lantana* cover can be attributed to weed management works. Although results show cover is decreasing, continued efforts are still required to control these weed species. An example of *lantana* coverage can be seen in Figure 6.

Table 4: Summary of BioCondition results for 2021 to 2025

Site ID	MZ	Regional Ecosystem (RE)	Condition	Benchmark used	Overall BioCondition score 2021	Overall BioCondition score 2022	Overall BioCondition score 2023	Overall BioCondition score 2024	Overall BioCondition score 2025	BioCondition class 2021	BioCondition class 2022	BioCondition class 2023	BioCondition class 2024	BioCondition class 2025
1	2	12.9-10.2	Remnant	12.9-10.2	0.61	0.61	0.63	0.59	0.65	2	2	2	3	2
2	3	12.9-10.2	Remnant	12.9-10.2	0.76	0.76	0.78	0.79	0.91	2	2	2	2	1
3	1	12.9-10.7 (pre-clear)	Non-remnant	12.9-10.7	0.33	0.33	0.40	0.26	0.26	4	4	3	4	4
4	2	12.8.17	Remnant	12.8.17	0.59	0.65	0.60	0.48	0.59	3	2	2	3	3
5	3	12.9-10.2	Remnant	12.9-10.2	0.67	0.67	0.69	0.54	0.80	2	2	2	3	2
6	1	12.9-10.2	Remnant	12.9-10.2	0.61	0.54	0.51	0.62	0.76	2	3	3	2	2

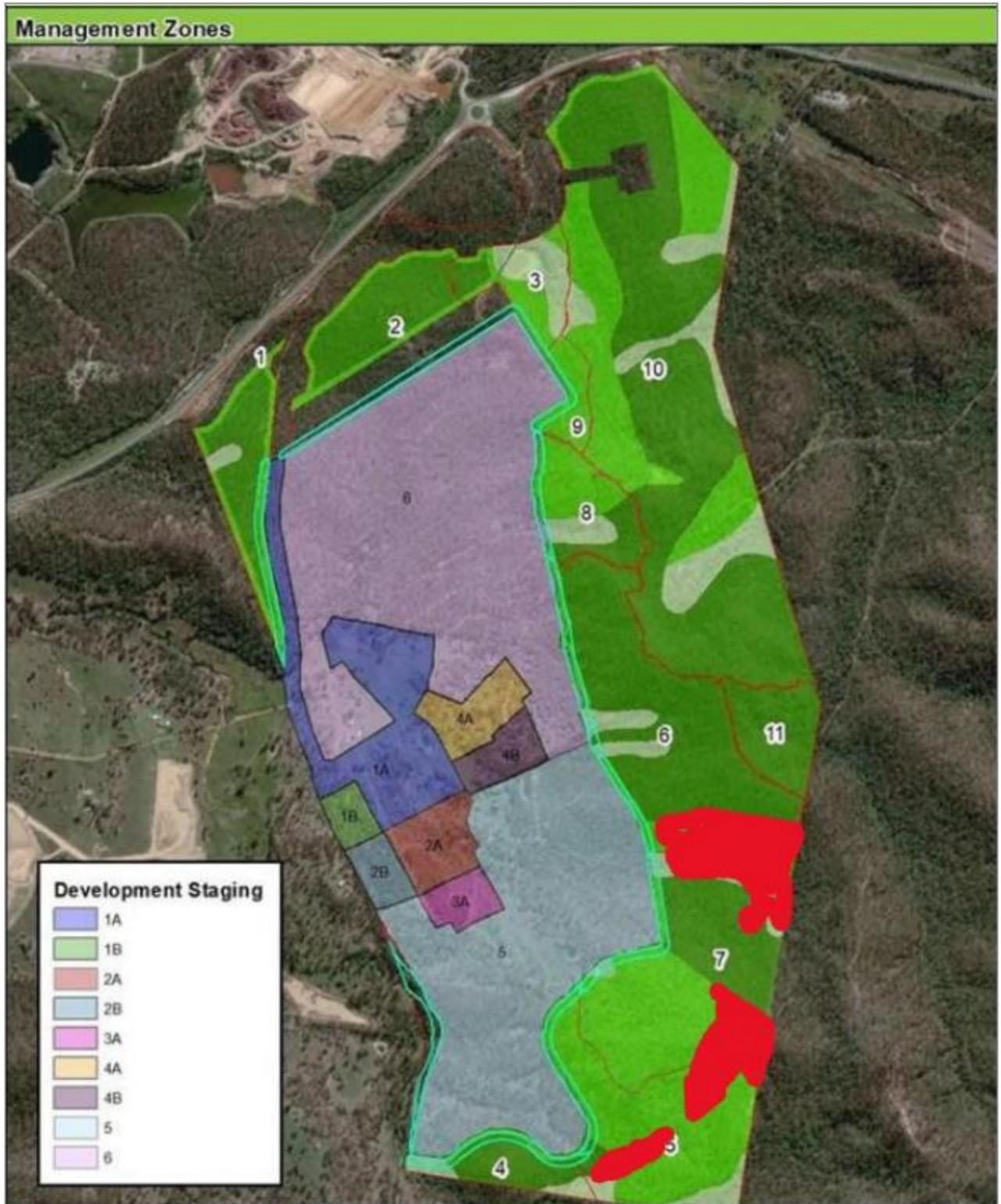


Figure 2: Areas where weed management works were undertaken between January to March 2025. Sketched mark-up indicates targeted areas (map from Evolve).

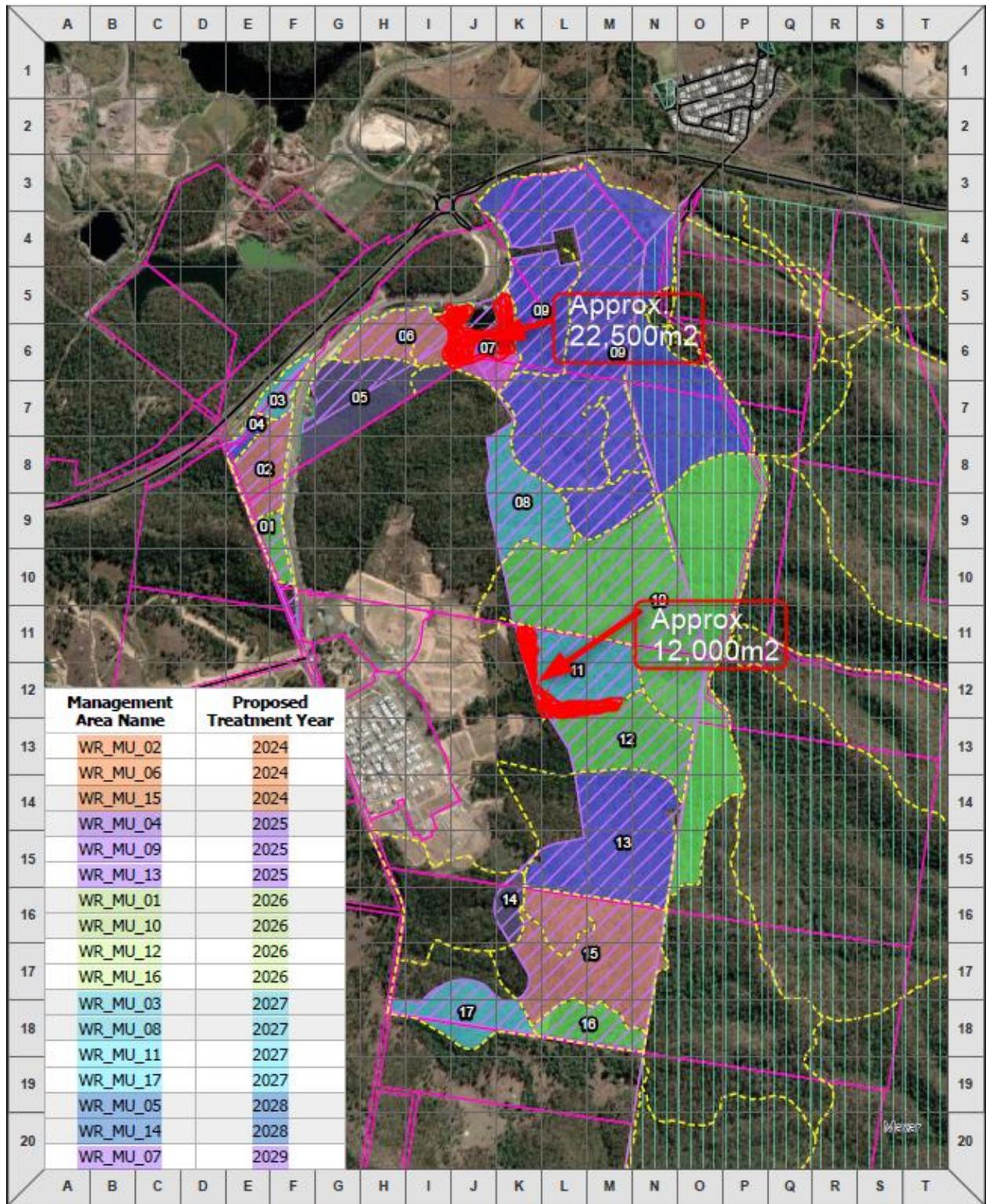


Figure 3: Areas where weed management works were undertaken between April and June 2025. Sketched mark-up indicates targeted areas (map from Evolve).

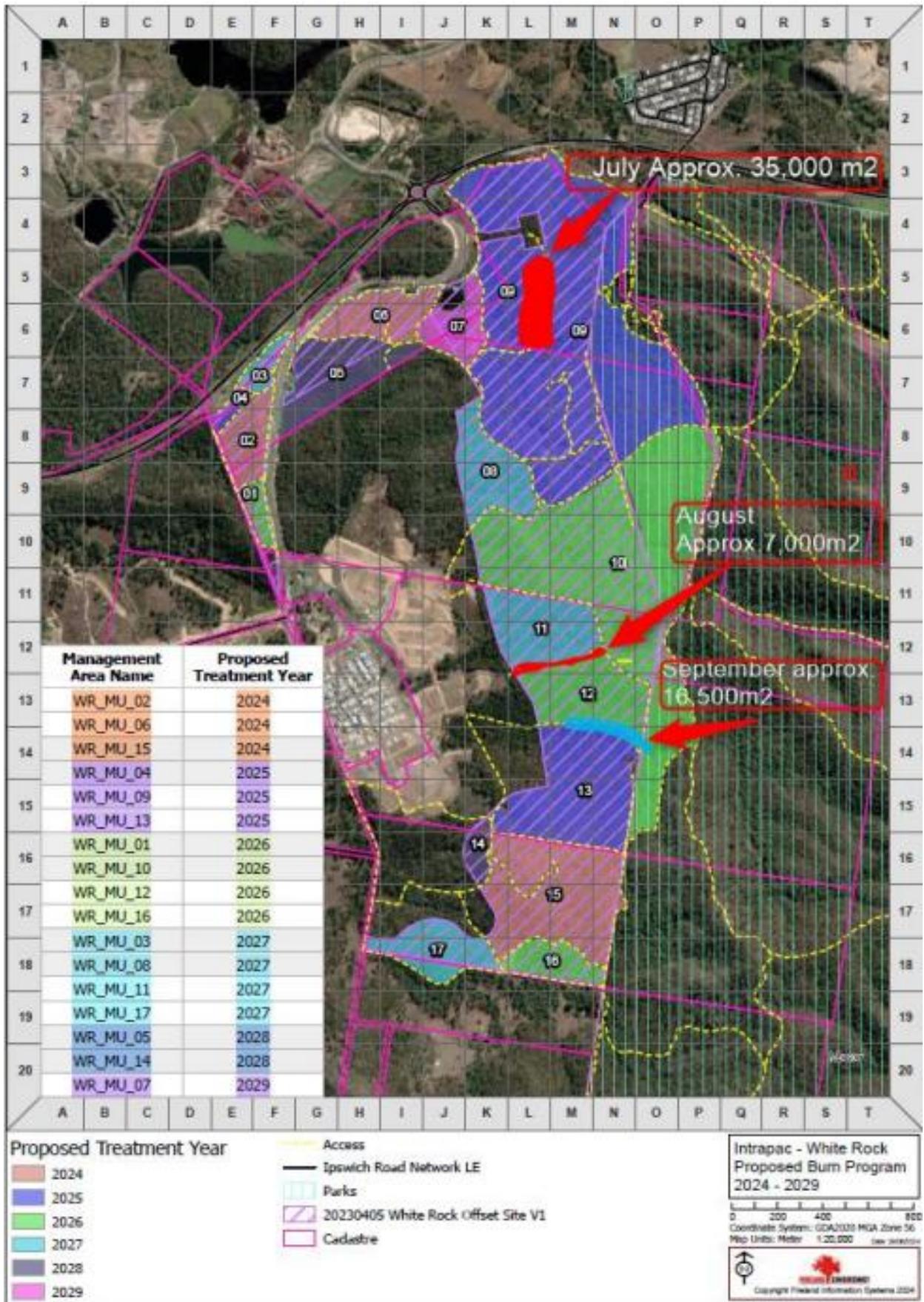


Figure 4: Areas where weed management works were undertaken between July and September 2025. Sketched mark-up indicates targeted areas (map from Evolve).

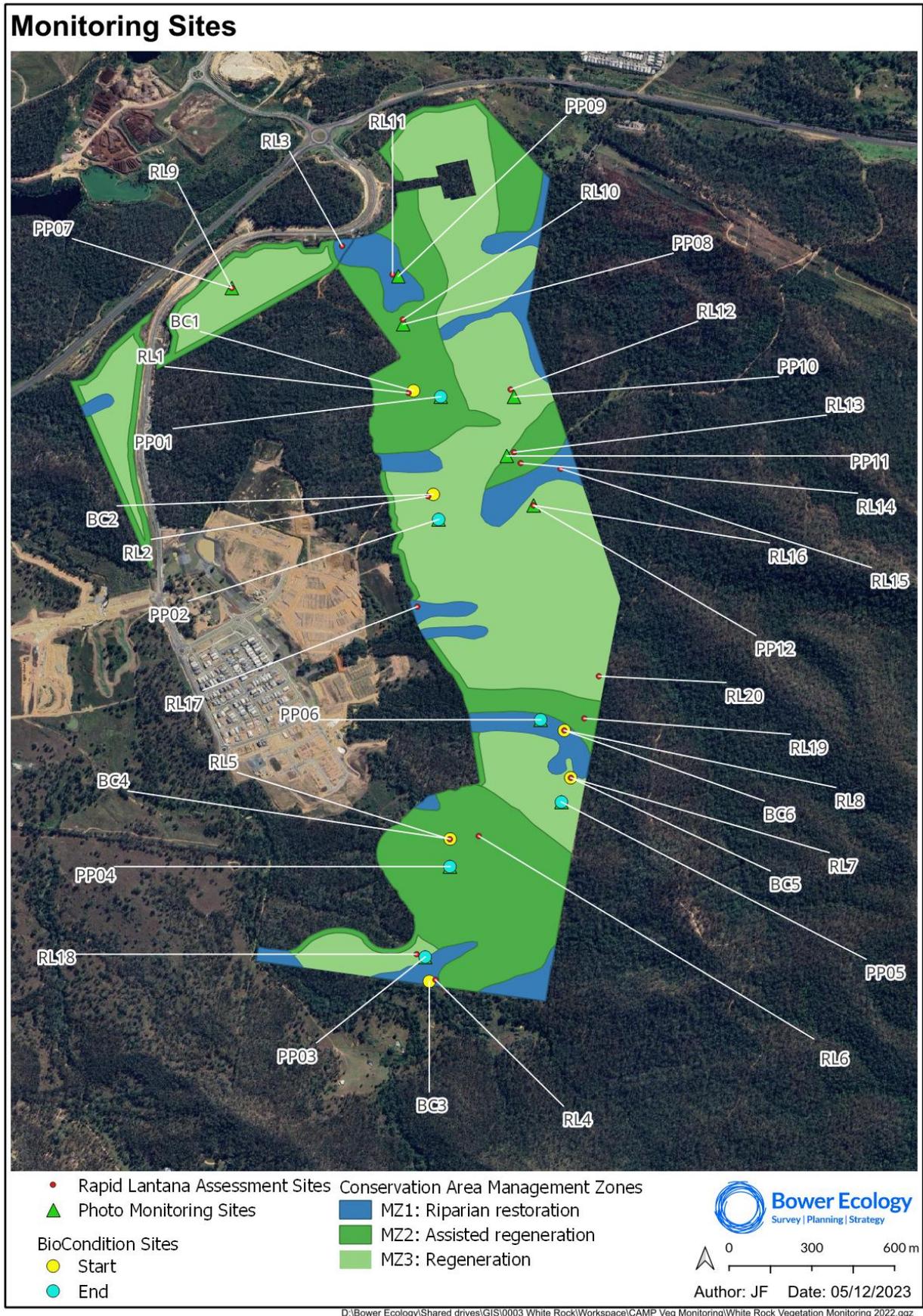


Figure 5: Location of the BioCondition (BC) plots, rapid Lantana camera monitoring plots (RL) and photos monitoring plots (PP) within the CAMP Area and management zones.



Figure 6: Example photos from BioCondition plots and photo monitoring plots, showing the range of *Lantana camara* coverage found in the CAMP Area. Photo monitoring site 11 (top, left and right), rapid Lantana monitoring plot 10 and 13 (centre left and right), and BioCondition 4 (bottom left and right).

3.3. Koala Monitoring

The Conservation Management Area has a designated KMP which has management actions to improve habitat value from the baseline condition, including:

- Planting and assisted regeneration
- Fire management (Section 3.4)
- Weed control (Section 3.2)
- Feral species management (Section 3.5)
- Restrict vehicle access

As detailed in Appendix F, a total of 33 SAT surveys were conducted in 2025. One SAT site recorded presence of koala. SAT calculations determined koala activity to be 0.1%. This is slightly higher than the previous monitoring event in 2023 (0%), in which but lower than both the 2019 baseline results (0.51%) and 2021 monitoring results (0.41%). All results indicate a low koala population density. The reduction in calculated activity in comparison to the baseline, however, is unlikely to represent a reduction in actual koala activity, as scat records confirm the species' continued presence on the site.

The following results can be visualised in Figure 7:

- No koalas detected during drone surveys
- No koala calls were recorded on the BioAcoustic Recorders.
- Koala scats were found at 1 of the 33 RGSAT survey locations

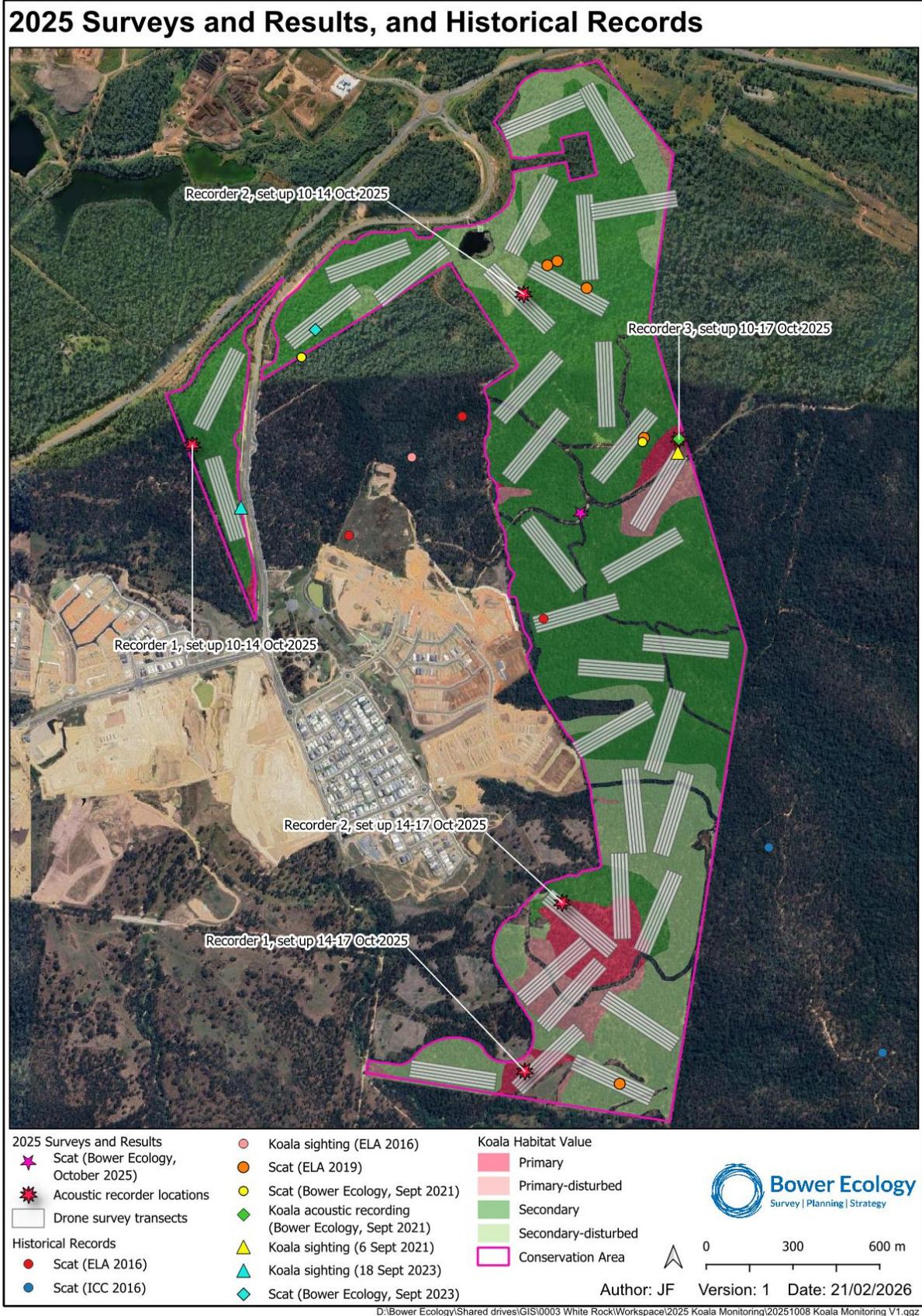


Figure 7: Findings from the 2025 Koala survey (including previous years)

3.4. Bushfire Management Report

The Conservation Management Area has three core fire management zones (Figure 8), each with their own strategy:

- Protection Zone
 - *Fine fuel layer not to exceed low to moderate risk or 5 tonnes/ha*
- Wildfire Mitigation Zone
 - *Maximum overall fuel hazard less than high or <8 tonnes/ha in ground and shrub layer,*
 - *Planned burns occur at lower end of recommended intervals, and area treated is 0-80% of the block (Table 5)*
 - *Fuel management by slashing, selective shrub clearing and trail construction*
- Conservation Zone
 - *Planned burns occur at lower end of recommended intervals, and area treated is 0-80% of the block (Table 5)*

Table 5: Recommended intervals for planned burns in wildfire mitigation and conservation zones

RE	Recommended interval	Recommended season	% burnt in this reporting interval	% burnt in history of CAMP implementation
12.9-10.2	4-25y	Summer - Winter	0	≈ 28.9 – 31.9%
12.9-10.7a	4-25y	Summer - Winter	≈ 8.8%	≈ 8.8%
12.8.24	4-25y	Summer - Winter	0	0
12.9-10.17	8-20y	Summer - Winter	0	≈ 1.9
12.8.17	3-6y	Summer - late Autumn	0	≈ 59%
12.3.3	3-6y	Summer - late Autumn	0	0

Fireland was contracted in late 2023 to undertake bushfire management in White Rock. Fire management was completed from 11th to 13th of September 2025 (Appendix A). Approximately 90% of fire management area 04, and 80% of fire management area 06, were burned with low-moderate severity fires. This area equates to 3.46% of the total CAMP area. The management areas treated in 2025 are indicated in Figure 9 and Figure 10.

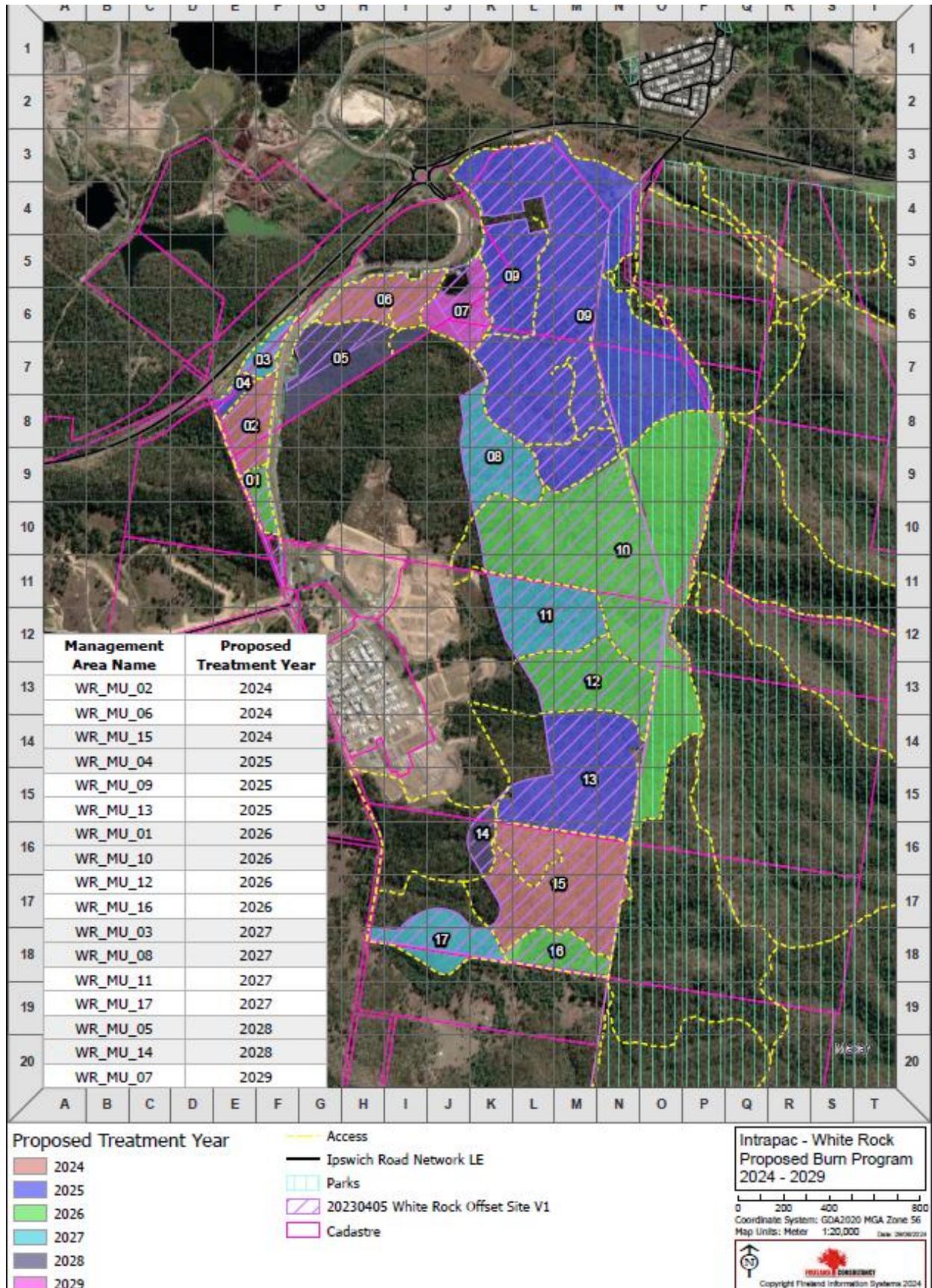


Figure 8: Fire Management Zones (mapping by Fireland Consultancy Pty Ltd)



Figure 9: Bushfire management undertaken in Management Zone 04 in September 2025 by Fireland Consultancy Pty Ltd (mapping by Fireland Consultancy Pty Ltd)

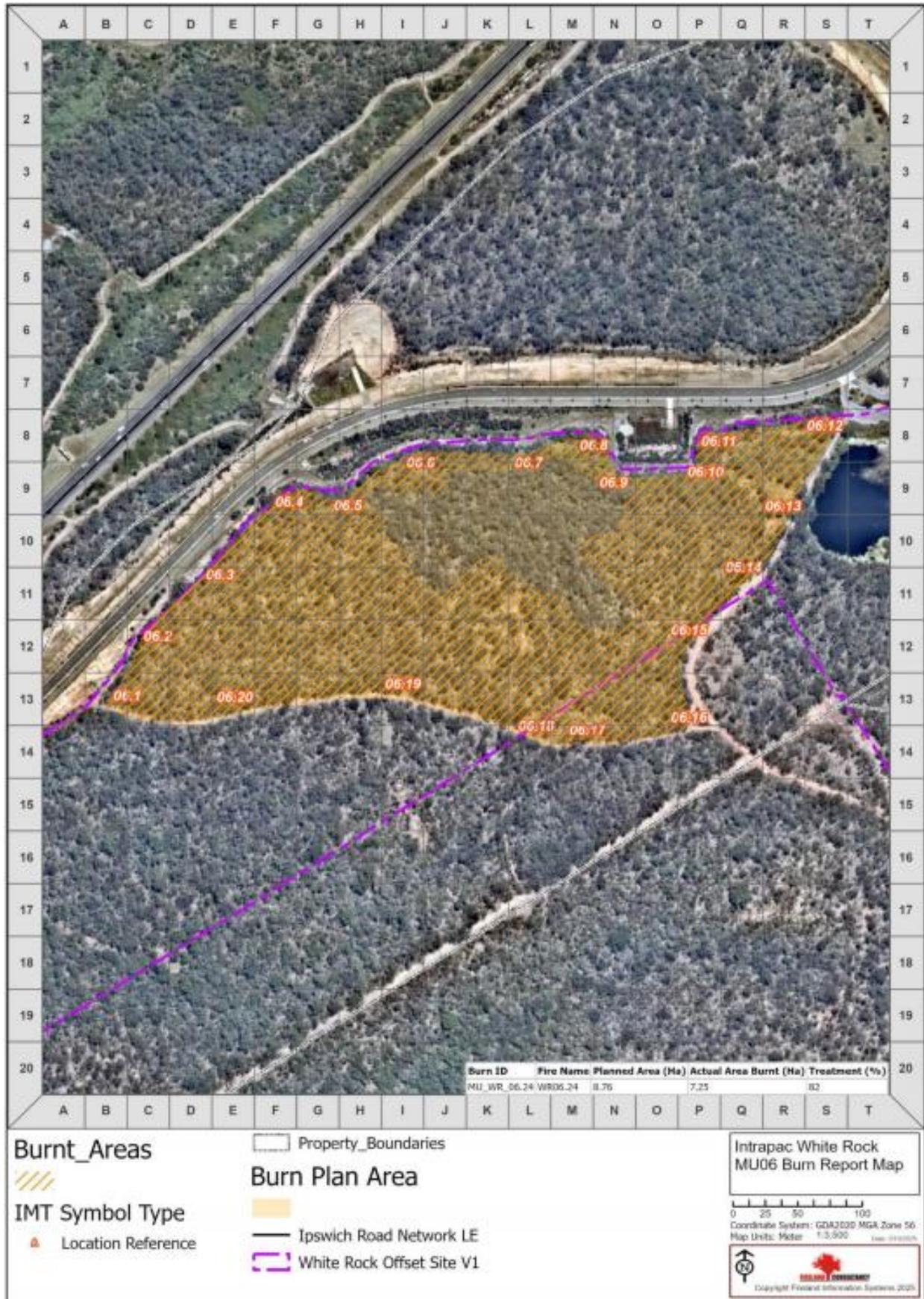


Figure 10: Bushfire management undertaken in Management Zone 06 in September 2025 by Fireland Consultancy Pty Ltd (mapping by Fireland Consultancy Pty Ltd)

3.5. Pest Management Report

Table 6 describes the pest management works undertaken in the Conservation Management Area in 2025 (see 2025 Pest Monitoring Report in Appendix B).

Table 6: Methods of pest management works undertaken in the Conservation Area in 2025 by Invasive Plant and Animal Services

Month	Pest Management Conducted
January – March 2025	<ul style="list-style-type: none"> • Eight DK9 1080 baits were deployed. • Three 1080 Warning and Pest Operation signs were replaced. • Five foot hold traps were deployed. • One Wild Dog was shot on track heading west from Interpretation Centre. • Six cameras were deployed (4 x cellular in February visit, two static cameras, photos attached) • No Feral Cats were observed, trapped, or recorded via cameras.
September – December 2025	<ul style="list-style-type: none"> • Three 1080 Warning and Pest Operation signs were replaced. • Ten foot hold traps were deployed (no capture) (Figure 11). • Six cameras were deployed. • One male Dog was shot in September (Figure 12). • No Feral Cats were observed, trapped, or recorded via cameras.



Figure 11: Pest fauna management works undertaken in September – December 2025 (figure supplied by Invasive Plant and Animal Services (INVPAS))



Figure 12: Wild Dog shot by INVPAS on 9th of September at approximately 9:22 am (photo supplied by Evolve Environmental Solutions).

This reporting period saw the fifth year of monitoring events. Surveys occurred in Spring and Autumn as required. Within the Conservation Management Area, 21 individual pests were recorded in 2025 whilst within the White Rock Conservation Estate, 12 individual pests were observed (see Table 7 and Figure 13).

Distribution of pest species in 2025 was relatively consistent across the site (Figure 13), indicating the recorded species utilised the entire landscape, although Feral Pigs did appear to favour low lying wet areas. This is similar to 2024 monitoring results, but differs somewhat from previous monitoring events, in which pest activity recorded was concentrated in the central and southern areas of the Conservation Management Area and White Rock Conservation Estate. A map of all remote camera locations and recorded targeted pest species can be seen in Appendix B.

Other key results for each target pest species include:

- No Feral Cats were detected in the Spring and Autumn surveys conducted in 2025.
- There was an increase in Foxes recorded in comparison to all previous monitoring events. Records from both baseline years (2021 and 2022) show 5 Foxes per year across the Conservation Area and White Rock Conservation Estate. Six Foxes were recorded in 2023, and 4 in 2024; 2025 monitoring recorded 8 Foxes across the site (6 in the Conservation Area and 2 in the White Rock Conservation Estate).
- While half the number recorded in 2024, Wild Dog numbers have increased in comparison to the baseline. 2025 surveys recorded 7 Wild Dogs across the site (5 in the Conservation area

and 2 in the White Rock Conservation Estate). Averaged over the two baseline years (2021 and 2022), records show a mean of 1.5 Dogs per year across the Conservation Area and White Rock Conservation Estate. This increased to a total of 5 Dogs recorded in 2023 (1 in the Conservation Management Area and 4 in the White Rock Conservation Estate), and further to a total of 14 Dogs recorded in 2024 (9 in the Conservation Management Area and 5 in the White Rock Conservation Estate).

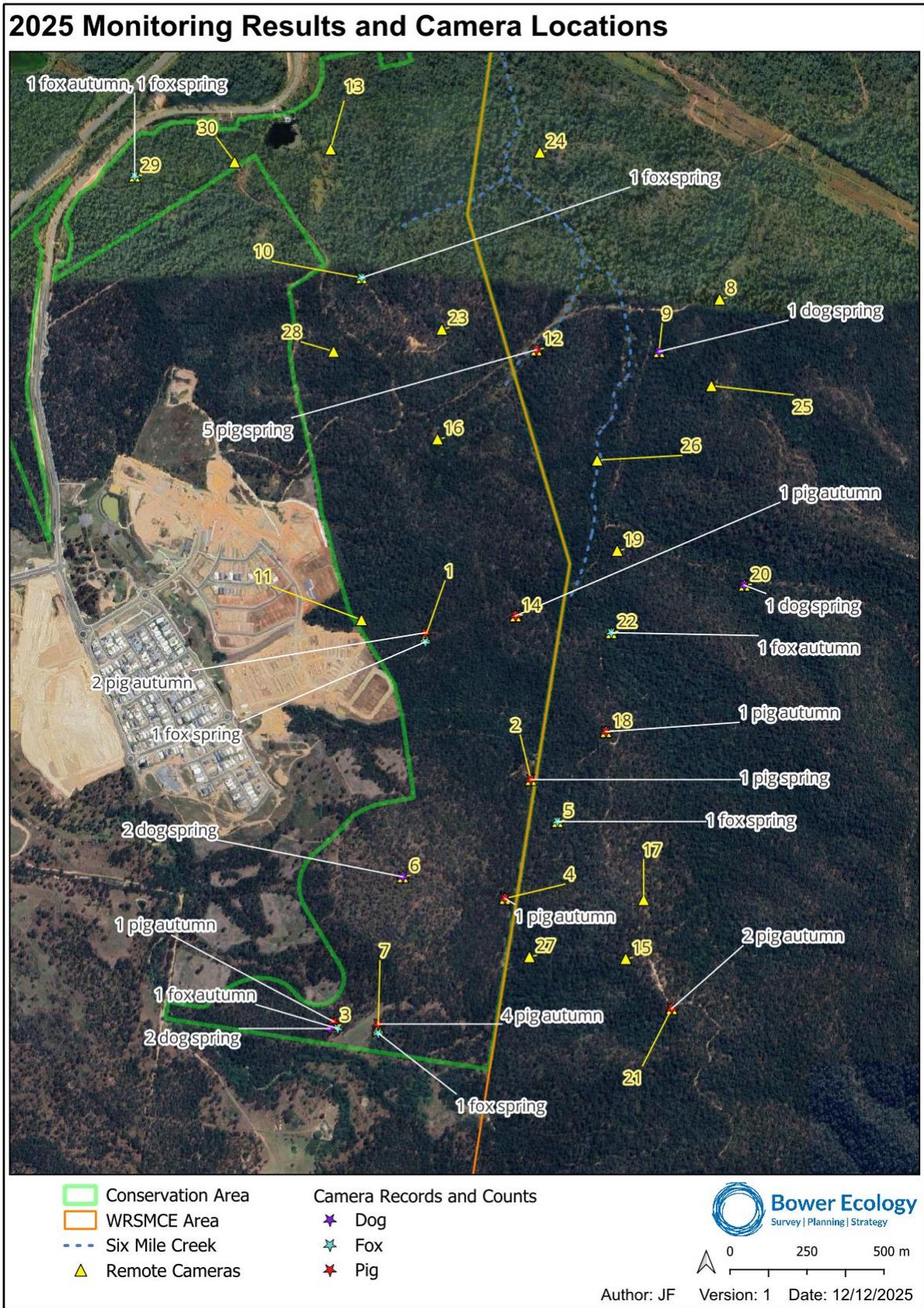
- While reasons for this increase in Fox and Dog numbers are unclear, it could be attributed to recent construction activity in White Rock Precincts 4 and 5. Disturbance of habitat and machinery movement are likely to have displaced animals from the construction sites, causing them to relocate to the adjacent CAMP area where food and shelter were available.
- Until 2025 monitoring, Feral Pig counts had shown a decreasing trend since monitoring commenced. While less than those recorded during baseline surveys, 2025 Feral Pig counts were higher than those of the previous two monitoring periods in 2023 and 2024. The majority of these were recorded in Autumn 2025 surveys and the increased numbers can likely be attributed to the occurrence of ex-Tropical Cyclone Alfred in March 2025, and the subsequent increase in availability of resources and habitat for this species in the months succeeding the climatic event.

Detailed analysis is provided in Appendix B. The report demonstrates that the pest fauna management performance criteria documented in the EPBC Act approval have not been met. That is, with the exception of feral cats, pest fauna numbers have increased across both the Conservation Area and the White Rock Conservation Estate over recent years.

As the increase in recorded abundance of Wild Dogs and Foxes recorded in 2025 in comparison to the baseline represents non-compliance, corrective actions must be taken. Ongoing pest management will apply additional management effort to reduce the Wild Dog and Fox abundance.

Table 7: Number of individuals recorded across the two 2025 monitoring events

Survey Area	Number of individuals identified for each target pest species				
	Feral Cat	Wild Dog	Fox	Feral Pig	Total
Conservation Management Area	0	5	6	10	21
White Rock Conservation Estate Area	0	2	2	8	12
Total	0	7	8	18	33



D:\Bower Ecology\Shared drives\GIS\0003 White Rock\Workspace\Pest Monitoring\JF_20230905 Pest Monitoring Maps.qgz

Figure 13: Pest monitoring results across the Spring and Autumn surveys conducted in 2025

4 Conclusion and Next Steps

Monitoring surveys and reporting for vegetation, weeds, bushfire management and pest animals have all been completed as required under the EPBC Act approval.

Upcoming management works (zones referred to are fire management zones as per Figure 8) in 2026 comprise:

- Scheduling and undertaking of bushfire management (track maintenance, establishment and ecological burns).
- January:
 - Weed management and vegetation clearing in zones 12 and 13, focussing on Lantana using folia spraying and brush cutting.
- February:
 - Weed management in zones 11 and 12, and follow up treatment of zones 7 and 9.
 - Planting of remaining *Melaleuca irbyana*.
 - Proposed targeting baiting and trapping to manage pest fauna.
- March:
 - Weed management in zones 1, 2, 3, and 4.
 - Proposed targeting baiting and trapping to manage pest fauna.
- April:
 - Weed management and vegetation clearing in zones 10, 11, and 12, focussing on manual clearing of Lantana.
 - Follow up spray treatments in zones 11 and 12.
 - Monitoring of *M. irbyana* plantings.
 - Proposed targeting baiting and trapping to manage pest fauna.
- May:
 - Weed management and vegetation clearing in zones 14, 15, 16, and 17, focussing on manual clearing of Lantana.
 - Proposed targeting baiting and trapping to manage pest fauna.
- June:
 - Monitoring of weed regrowth in zones 1, 2, 3, and 4. Management will be focussing on manual clearing of Lantana.
 - Slash tracks and monitor weed regrowth around Groundsel patch in zones 15 and 16.
 - Proposed targeting baiting and trapping to manage pest fauna.
- July:
 - Weed management and vegetation clearing in zone 9, focussing on manual clearing of Lantana.
 - Follow up spray treatments in zones 14, 15, 16, and 17.
 - Proposed targeting baiting and trapping to manage pest fauna.
- August:
 - Weed management and vegetation clearing in zones 10, 11, 12, and 13, focussing on manual clearing of Lantana.
 - Follow up spray treatments in zone 9.
 - Proposed targeting baiting and trapping to manage pest fauna.
- September:
 - Weed management and vegetation clearing in zones 8 and 10, focussing on manual clearing of Lantana.
 - Follow up spray treatments in zones 10, 11, 12, and 13.
 - Proposed targeting baiting and trapping to manage pest fauna.

- October:
 - Weed clearing and spray treatments in zones 5, 6, and 7.
 - Follow up spray treatments in zones 8 and 10.
 - Proposed targeting baiting and trapping to manage pest fauna.
- November:
 - Any additional planting required to be undertaken from late November to late February during favourable weather conditions (summer rain).
 - Spray treatments in zones 9 and 10.
 - Follow up spray treatments in zones 8 and 10.
- December:
 - Spray treatments in zones 1, 2, 3, 7 and 9.

The project is in compliance with the EPBC Act approval, with the exception of two issues. The exceptions are the increase in Wild Dog and Fox numbers detailed in Section 3.5 and further in Appendix B, and the overdue legal securing of Zone 1 and 2 via VDec.

To address the non-compliance relating to pest monitoring results, a proposal is to be put forward to extend the pest management scheme with a focus on reducing wild dog and fox abundance.

The process towards legal securing of Zone 1 and 2 will continue to be undertaken, as detailed in Table 1. The timing of the legal securing of the land will not prevent the continued management of the conservation area in a manner consistent with the CAMP.

The legal security process is in progress. An application to the Qld Government have been submitted for two of the 3 lots within Zone 1 (Lot 2 SP339186 and Lot 80 SP346894) – with VDEC finalisation imminent (upon acceptance by the Qld Government). The legal securing of the final lot (Lot 174 S31238) within Zone 1 will occur as soon as possible.

Zone 2 is overdue as the location of the proposed water infrastructure in this zone is currently being amended due to Queensland Urban Utilities design requirements. As the updated water infrastructure design may impact the offset area established for this action, a VDec cannot be prepared until the design is finalised. It is likely that the proponents will soon seek amendments to the offset area, with adequate compensation, to allow the water infrastructure to be built. Once this is complete, the required VDec can be established for Zone 2, and this zone can be legally secured.

5 References

Bower Ecology 2025. *White Rock Vegetation Monitoring Report (2025)*. Prepared for Intrapac Property Pty Ltd.

Bower Ecology 2025. *White Rock Pest Monitoring Report – Report No. 4 (2025)*. Prepared for Intrapac Property Pty Ltd.

Bower Ecology 2025. *White Rock Koala Monitoring Report – Report No. 4 (2025)*. Prepared for Intrapac Property Pty Ltd.

Evolve 2025. *CAMP Rehabilitation Projects, White Rock – Quarter 2 2025*. Prepared for Bower Ecology and Intrapac Property Pty Ltd.

Evolve 2025. *CAMP Pest Fauna Monitoring Report – August to December 2025*. Prepared for Bower Ecology and Intrapac Property Pty Ltd.

Evolve 2025. *CAMP Rehabilitation Projects, White Rock – Quarter 3 2025*. Prepared for Bower Ecology and Intrapac Property Pty Ltd.

Evolve 2025. *CAMP Rehabilitation Projects, White Rock – Quarter 4 2025*. Prepared for Bower Ecology and Intrapac Property Pty Ltd.

Fireland Consultancy 2025. *Operational Post Burn Report – Burn Name WR_MU_04*.

Fireland Consultancy 2025. *Operational Post Burn Report – Burn Name WR_MU_06*.

Invasive Plant and Animal Services 2025. *Pest Fauna Monitoring Report January to March 2025 – CAMP Rehabilitation Projects, White Rock*.

Invasive Plant and Animal Services 2025. *Pest Fauna Monitoring Report September to December 2025 – CAMP Rehabilitation Projects, White Rock*.

Appendix A: Bushfire Management Post-Burn Reports

S28 – A OPERATIONAL POST BURN REPORT

BURN NAME	WR_MU_04	Lot/Plan/s No. (all approvals obtained) <input checked="" type="checkbox"/> Yes	1892/SP313517 2/SP339186
Burn No.	WR_MU_04		
Location	White Rock	Road Segment No.	NA
LGA	Ipswich	Proposed Timing	May - August
Date burn started	11/09/2025	Time	12:00
Date burn deemed out	13/09/2025	Time	17:30

Incident Controller	Joshua Bull	Fireland Consultancy
	Name	Position

SITUATION - OUTCOMES

Area to be treated	1.4 Ha	Percentage aim	50-70%	Last Fire	unknown
Actual treated area	1.4 Ha	Percentage	90 %	Severity	Low-Moderate

MISSION – OUTCOMES

Aim & Objectives (Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Reduce fuel hazard by 50-70% across burn area. No engagement of public or private assets. Burn any lantana where possible Minimal impact on community
Outcomes (Outline if the objectives were met, if not why not)	Met. Approximately 90% of the area treated. 1 – 6 M of Scorch in areas treated with reasonable duff left in most places. Unburnt portions are small and mosaic No smoke impact on residents or roads
List recommendations (For burn area, may include fire trail works, etc)	Treat weed areas of lantana

EXECUTION – DETAILS

Weather Stats

Date/Time	Temperature (Degrees C)	Relative Humidity (%)	Wind Speed (km/hr)	Direction	Other
11/09/2025					
10:00	23	56	10	WNW	
11:00	25	54	8	WNW	
12:30	27	51	8	WNW	
13:00	28	48	7	W	
14:30	29	44	7	W	
15:00	29	42	10	W	
16:00	28	38	10	SW	
17:00	25	40	7	SW	

Comments (List any weather conditions that significantly impacted operations)	Significant soil moisture on the southern slopes.				
	Fire danger index	Moderate FBI - <10	Actual KBDI	~98	

Ignition used (Describe the ignition)	<input checked="" type="checkbox"/> On ground ignition <input type="checkbox"/> Aerial Ignition Various line and spot ignitions to vary intensity, coverage and for containment.				
---	--	--	--	--	--

Implementation Comments	Ignitions started at 4.8 and then proceeded either direction down to 4.1 and around to W1. Once back edge was secured then internal ignitions commenced along the western side. More internal ignitions occurred once perimeter was secured,				
--------------------------------	---	--	--	--	--

ADMINISTRATION

Complaints <input checked="" type="checkbox"/> No Issues	Nil.				
Infrastructure damage <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on road network <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on community <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on direct residents or stakeholders <input checked="" type="checkbox"/> No Issues	Nil.				
Other (Include any other comments)	Nil.				

SAFETY

Any incidents

Nil.

Photos



















Burn ID	Fire Name	Planned Area (Ha)	Actual Area Burnt (Ha)	Treatment (%)
Int_WR_04.25	Intrapac 04	1.41	1.41	90

Burnt_Areas



IMT Symbol Type

Location Reference

Property_Boundaries

Burn Plan Area



Ipswich Road Network LE

White Rock Offset Site V1

Intrapac White Rock
MU04 Burn Report Map

0 12.5 25 50
Coordinate System: GDA2020 MGA Zone 56
Map Units: Meter 1:2,000 Date: 21/10/2025



S28 – A OPERATIONAL POST BURN REPORT

BURN NAME	WR_MU_06	Lot/Plan/s No. (all approvals obtained) <input checked="" type="checkbox"/> Yes	1892/SP313517
Burn No.	WR_MU_06		
Location	White Rock	Road Segment No.	NA
LGA	Ipswich	Proposed Timing	May - August
Date burn started	11/09/2029	Time	10:00
Date burn deemed out	13/09/2025	Time	17:00

Incident Controller	Joshua Bull	Fireland Consultancy
	Name	Position

SITUATION - OUTCOMES

Area to be treated	8.76 Ha	Percentage aim	50-70%	Last Fire	unknown
Actual treated area	7.25 Ha	Percentage	80 %	Severity	Low-Moderate

MISSION – OUTCOMES

Aim & Objectives (Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Reduce fuel hazard by 50-70% across burn area. No engagement of public or private assets. Burn any lantana where possible Minimal impact on community
Outcomes (Outline if the objectives were met, if not why not)	Met. Approximately 90% of the area treated. 1 – 6 M of Scorch in areas treated with reasonable duff left in most places. Unburnt portions are small and mosaic Minor smoke impact on residents or roads but very visible resulting in multiple 000 calls received over 2 days.
List recommendations (For burn area, may include fire trail works, etc)	Treat weed areas of lantana 6.9 around to 6.5

EXECUTION – DETAILS

Weather Stats					
Date/Time	Temperature (Degrees C)	Relative Humidity (%)	Wind Speed (km/hr)	Direction	Other
11/09/2025					
10:00	23	56	10	WNW	
11:00	25	54	8	WNW	
12:30	27	51	8	WNW	
13:00	28	48	7	W	
14:30	29	44	7	W	
15:00	29	42	10	W	
16:00	28	38	10	SW	
17:00	25	40	7	SW	
Comments (List any weather conditions that significantly impacted operations)	Significant soil moisture on the southern slopes.				
	Fire danger index	Moderate FBI - <10	Actual KBDI	~98	
Ignition used (Describe the ignition)	<input checked="" type="checkbox"/> On ground ignition <input type="checkbox"/> Aerial Ignition Various line and spot ignitions to vary intensity, coverage and for containment.				
Implementation Comments	Ignitions started at 6.16 and then proceeded either direction down to 6.12 and 6.1 and around to 6.5. Internal ignitions commenced along the southern side. Backing ignitions down the hill. More internal ignitions occurred once perimeter was secured.				
ADMINISTRATION					
Complaints <input checked="" type="checkbox"/> No Issues	Nil.				
Infrastructure damage <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on road network <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on community <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on direct residents or stakeholders <input checked="" type="checkbox"/> No Issues	Multiple call outs due to internal logs smoldering.				
Other (Include any other comments)	Nil.				

SAFETY

Any incidents

Nil.

Photos















Burn ID	Fire Name	Planned Area (Ha)	Actual Area Burnt (Ha)	Treatment (%)
MU_WR_06.24	WR06.24	8.76	7.25	82

- Burnt_Areas
- Property_Boundaries
- Burn Plan Area
- Ipswich Road Network LE
- White Rock Offset Site V1
- IMT Symbol Type
- Location Reference

Intrapac White Rock
MU06 Burn Report Map

Coordinate System: GDA2020 MGA Zone 56
Map Units: Meter 1:3,500 Date: 2/19/2025

Copyright Fireland Information Systems 2025

Appendix B: Pest Monitoring Report 2025

White Rock Pest Monitoring Report

Report No. 4 (2025)

Prepared for Intrapac White Rock Pty Ltd.

26 February 2026



Document Tracking

Project Name	White Rock Pest Monitoring Report – Report No. 4 (2025)
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Last saved on	26/02/2026

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Executive Summary

Approval under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) was obtained for the development of a mixed-use subdivision and associated infrastructure (the development) at White Rock in Ripley Valley (EPBC Act referral 2014/738, December 2019).

The EPBC Act approval requires pest management and monitoring to occur, as per the White Rock Pest Management Plan (PMP) (ELA, 2020). This report summarises the findings of the third annual pest survey (post baseline monitoring) for the development of White Rock. Subsequent sections highlight the methodology and results obtained as well as recommendations on how to manage targeted pest species. This report covers two monitoring events (autumn and spring 2025) and has been designed to provide direct comparison against the 2023 and 2024 monitoring results and the two-year long baseline surveys and reporting conducted at White Rock prior to this monitoring event.

Targeted pest species were the Feral Cat, Fox, Wild Dog and Feral Pigs. These species have been identified as high risk to the Conservation Area with further management required for all targeted species. The activity of these pest species was recorded through remote camera traps and visualised into descriptive maps. The 2025 survey results show an increase in Wild Dog and Fox numbers in comparison to previous years, including the baseline; Feral Pig numbers recorded were higher than those of the previous two monitoring events, while Feral Cat counts remain consistently at zero. While the reasons for this increase in Wild Dogs, Foxes, and Feral Pigs are unclear, it could be attributed to both the disturbance of construction works in adjacent habitat areas and the resulting displacement of animals into the Conservation Area and WRSME, and climatic conditions leading to an increase in resource availability across the monitoring site. Further management is recommended throughout, particularly targeting Wild Dogs, Foxes, and Feral Pigs.

The report demonstrates that the pest fauna management performance criteria documented in the EPBC Act approval have not been met, as there has been an increase in pest numbers (except for Feral Cat), in particular, an increase in Wild Dog and Fox.

1 Introduction

The objective of this report is to communicate the outcomes of the seasonal pest monitoring surveys undertaken as part of the White Rock project. Further information on project background and scope of this report is provided below.

1.1. Project Background

Approval under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) was obtained for the development of a mixed-use subdivision and associated infrastructure (the development) at White Rock in Ripley Valley (EPBC Act referral 2014/738, December 2019).

As required under the approval, the Conservation Area Management Plan (CAMP; Eco Logical Australia, 2020a) allocates 249 ha of land east of the proposed White Rock development as Conservation Area and EPBC Act offset area. The Conservation Area is also adjacent to the White Rock - Spring Mountain Conservation Estate (WRSMCE) (Figure 1) which is managed by Ipswich City Council (ICC).

The Conservation Area meets the requirements outlined under Queensland's *Environmental Offsets Act 2014* and the EPBC Act for impacts to Koala (*Phascolarctos cinereus*) and Grey-Headed Flying Fox (*Pteropus poliocephalus*) (GHFF) habitat, as defined by the EPBC Act. The CAMP requires improvement of Koala and GHFF habitat and overall health of bushland.

The CAMP is also supported by a Pest Management Plan (PMP; Eco Logical Australia 2020b) for the area, which outlines targeted pest management requirements for the Conservation Area. One of the primary objectives of the PMP and CAMP is to manage pest fauna within the Conservation Area, particularly those posing a threat to Koalas, with the eventual integration into the White Rock - Spring Mountain Conservation Estate (WRSMCE).

The European Red Fox (*Vulpes vulpes*) and Feral Cat (*Felis Catus*) have been identified as severe threats to native wildlife and threats to vital ecosystem processes (Department of the Environment and Energy, 2014). The *Nature Conservation (Koala) Conservation Plan 2017* (NCKCP) identifies the Wild Dog (*Canis lupus/Canis lupus dingo*) as a direct threat to Koala populations that requires strategic management. The PMP and CAMP recognises these pest species as a threat to local Koala populations and other native wildlife and subsequent potential impacts resulting in ecosystem fragmentation and introduction of additional pest species.

Upon the completion of the CAMP's on-maintenance period, assuming all PMP and CAMP requirements and targets have been achieved, the Conservation Area is intended to be handed over to the ICC for administrative and management purposes

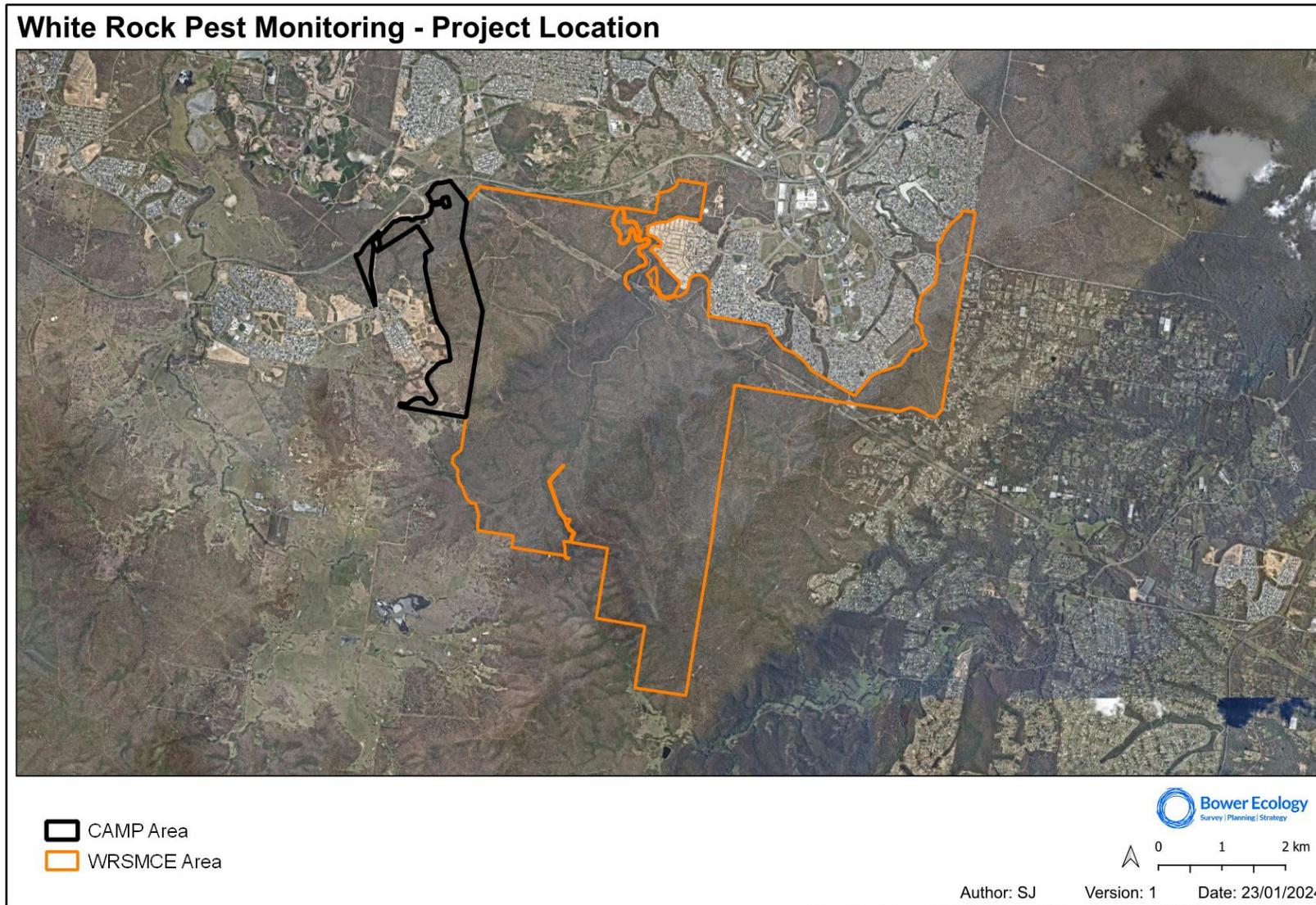


Figure 1: WRSME and CAMP area

1.2. Scope

The objective of this report is to provide comprehensive insights into the size and distribution of the designated species across the study area. This includes Foxes, Feral Pigs, Feral Cats, and Wild Dogs.

The PMP stipulates the necessity of two targeted surveys, one in Autumn and one in Spring, conducted within both the Conservation Area and the White Rock - Spring Mountain Conservation Estate (WRSMCE).

The specific tasks in this undertaking are as follows:

- Utilise remote cameras to monitor and identify variations in populations of feral animals;
- Conduct targeted baseline surveys for pest fauna, employing methods such as incidental observations, area searches, and remote cameras. The identified pest species include Foxes, Feral Cats, Wild Dogs, and Feral Pigs (Section 2.1);
- Identify any additional feral or pest species to enhance the adaptive management strategies outlined in the PMP;
- Compile a report, represented by this document, outlining the baseline discoveries in alignment with the PMP;
- Articulate the actions for managing pest fauna, guided by the Conservation Area Management Plan (CAMP), to meet the criteria outlined in Table 1.

Table 1: Bushland management actions relating to pest fauna management

Task	Establishment	Management	Maintenance
	By end of year 3	End of year 3 to end of year 6 (the current period)	Beginning of year 7 to end of approval (end of year 12)
Pest Fauna Management	Two survey events completed to determine baseline of Wild Dogs/Feral Cats/foxes within the Conservation Management Area and reference sites within the adjacent White Rock - Spring Mountain Conservation Estate. Development of a pest management plan that specifies how feral Wild Dogs, Feral Cats and foxes will be reduced in the Conservation Management Area.	Between end of year 3 and end of year 6, no increase in pests against baseline, or, in the event of evidence on an increase of pests in the general area as measured at the reference sites within the White Rock - Spring Mountain Conservation Estate, then demonstrated reduction in pests relative to these reference sites, measured annually.	From beginning of year 6 to end of approval, maintain a reduction in pests relative to baseline, measured annually, or in the event of evidence of an increase of pests in the general area, as measured at reference sites within the White Rock - Spring Mountain Conservation Estate, then demonstrated reduction relative to these reference sites, measured annually.

1.3. Study Area Description

The Conservation Area (Figure 1), delimited to the north by the Centenary Highway, spans approximately 250 ha. To the west of the study area, land has been cleared for agricultural purposes in lowland areas, with plans for future urban development as part of the Ripley Valley Priority Development Area (PDA). The Conservation Area comprises a mix of maturing and mature vegetation, extending eastward into the White Rock - Spring Mountain Conservation Estate (WRSMCE) over approximately 2,500 ha. This larger area is part of the extensive vegetation associated with the Flinders Karawatha Corridor, as per the Department of Environment and Heritage Protection (2014). It's important to note that the portion of the WRSMCE used in this study is proportionate to the size and vegetation community composition of the Conservation Area but does not represent the entirety of the WRSMCE.

The vegetation communities within the Conservation Area have been identified through initial ecological surveys conducted by Eco Logical Australia in 2017, revealing eight broad vegetation communities. These communities are summarized in Table 2.

Table 2: Vegetation Communities in the Conservation Area and WRSME

Vegetation Community	Area (ha)
Acacia +/- scattered Eucalypts (i.e., <i>Eucalyptus tereticornus</i> , <i>E. crebra</i>)	3.8
Dam	1.1
Exotic Grassland +/- sparse Acacia and Eucalypts (i.e., <i>E. tereticornus</i> , <i>E. crebra</i>)	5.5
<i>E. tereticornis</i> (Forest Red Gum) on alluvium	0.8
<i>E. tereticornis</i> , <i>Lophostemon suaveolens</i> (Swamp Box) and <i>E. crebra</i> (Narrow-leaved Ironbark).	8.1
<i>E. crebra</i> , <i>E. tereticornis</i> , <i>E. melanophloia</i> (Silver Leaved Ironbark)	15.6
<i>Corymbia citriodora</i> (Spotted gum)	9.8
<i>C. citriodora</i> , <i>E. crebra</i> , <i>E. melanophloia</i> , and other Eucalypts	183.1
<i>E. acmenoides</i> (White Mahogany), <i>E. major</i> (Grey Gum), <i>C. citriodora</i>	21.6
Total	249.4

2 Methods

2.1. Field Survey

In autumn and spring of 2025, two survey events were conducted in the Conservation Area and WRSME by a team of two ecologists. The autumn survey was conducted between 14 and 29 April 2025 and the spring survey between 13 November and 2 December 2025 (Table 3). A total of 34 days of remote data was collected to complete the survey, however only the first 14 days recorded at each monitoring event are used in the results in accordance with the PMP. Monitoring was undertaken in a manner consistent with the baseline surveys. The primary objective of these field surveys was to monitor the activity of targeted pest species in the Conservation Area and WRSME. Detailed descriptions of each field method are provided in the subsequent sections.

Table 3: Details of the pest surveys conducted in 2024

Survey Round	Start Date	End Date	Survey Effort (Days)	Survey Effort (days) used in the analysis
Autumn 2025	14 April	29 April	15	14
Spring 2025	13 Nov	2 Dec	19	14

2.1.1. Remote Camera

A total of 30 remote infrared motion-sensitive cameras were deployed, each for a minimum of 14 days (Table 3), during both the autumn and spring surveys in 2025. Although cameras were left longer than the required 14-day period during both 2025 survey events, only data from the first fortnight was used in the results to allow direct comparison with baseline data and previous years. The remote monitoring specifically targeted 15 locations within the Conservation Area and an additional 15

reference sites within the White Rock - Spring Mountain Conservation Estate (WRSMCE) (see Table 4 and Figure 3). To ensure an even distribution of survey sites, preliminary camera site locations were planned at a desktop level using a 250 m x 250 m grid over the Conservation Area and WRSMCE before the commencement of 2021 baseline surveys.

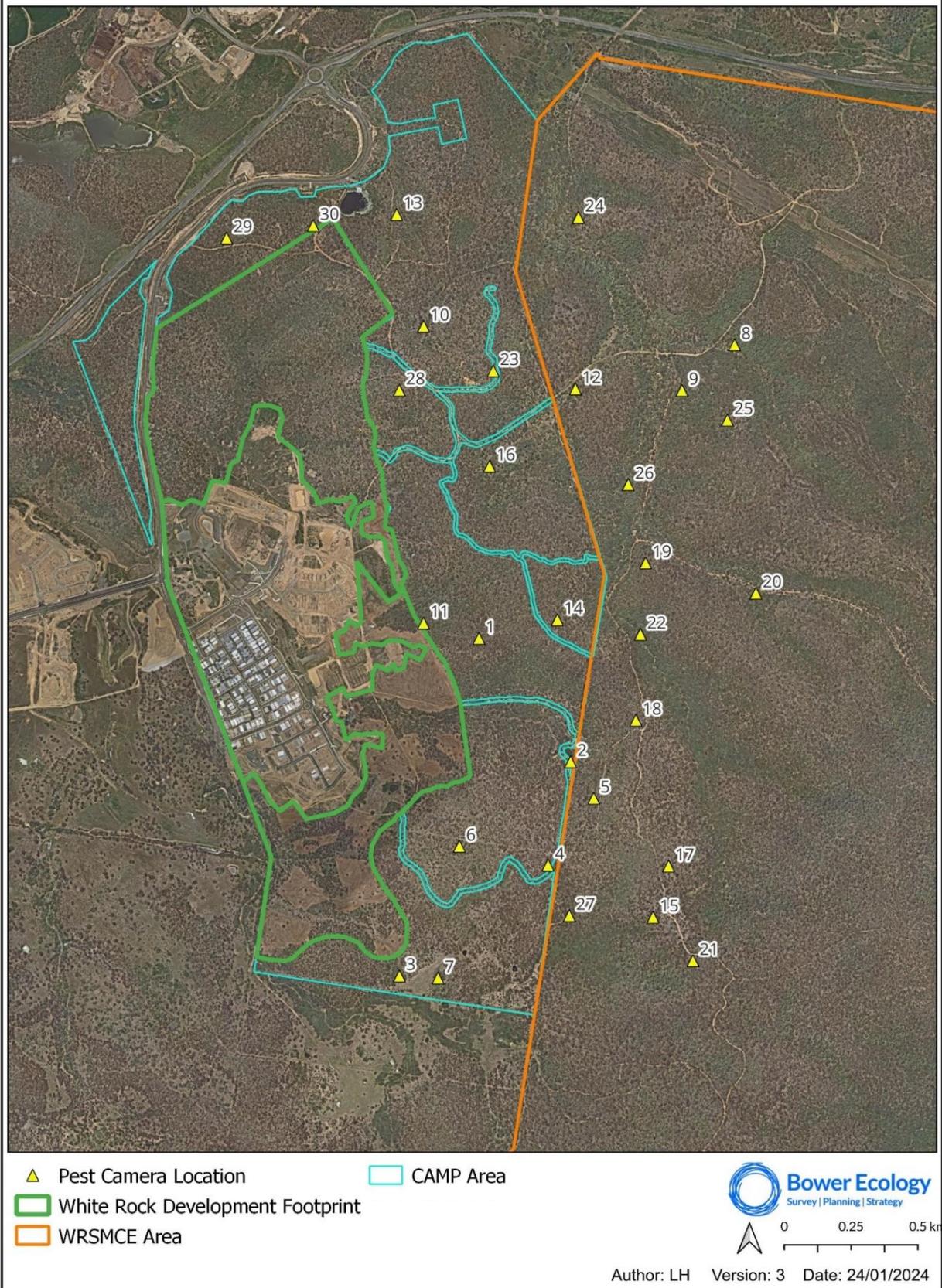
To maintain accuracy, GPS was used to record the coordinates, along with descriptions (including camera height, angle, and orientation), and photographs of each location. This information was captured during the baseline surveys in 2021 to establish consistent monitoring locations for the Pest Management Plan (PMP) (Figure 3 and Table 4). In the autumn 2025 surveys, some camera locations had to be changed slightly because either the trees on which they had previously been secured had fallen, or extensive weed growth would have obscured the view of the bait station had they been positioned as previously. In most of these instances, cameras were able to be either pivoted to face a different direction while remaining in the designated location, or secured to an alternative tree or structure within 1 m of this location. In one case (camera 8), Lantana had grown so extensively that the camera had to be relocated approximately 6 m from the designated location.

Bait stations were set opposite the cameras to lure the target species (Figure 2). Following the PMP, the bait type and volume remained consistent throughout the survey. A golf ball sized bait ball designed to attract Foxes, Feral Pigs, Feral Cats and Wild Dogs was placed in each station. The bait consisted of wet cat food mixed with dry oats, peanut butter, and honey.



Figure 2: Camera set up in riparian zone facing down towards bait station

Remote Camera Locations



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Figure 3: Remote camera locations in the Conservation Area and WRS MCE

Table 4: Locations of the remote cameras in the CAMP and WRSMCE

Camera ID	Habitat Type	Latitude	Longitude
Conservation Area			
1	Open Woodlands	-27.695324	152.845646
2	Ephemeral Lake	-27.699531	152.849118
3	Riparian	-27.706814	152.842612
4	Open Woodlands	-27.703044	152.848258
6	Open Woodlands	-27.702399	152.844895
7	Fringing Woodlands	-27.706884	152.844075
10	Open Woodlands	-27.684696	152.84356
11	Open Woodlands	-27.694804	152.843544
13	Fringing Woodlands	-27.680888	152.842545
14	Open Woodlands	-27.694694	152.848621
16	Open Woodlands	-27.689462	152.846056
23	Open Woodlands	-27.686219	152.846201
28	Open Woodlands	-27.686871	152.842637
29	Open Woodlands	-27.681684	152.836091
30	Open Woodlands	-27.681265	152.839382
White Rock- Spring Mountain Conservation Estate			
5	Riparian	-27.700771	152.849993
8	Ephemeral Lake	-27.685341	152.855358
9	Open Woodlands	-27.686888	152.85336
12	Riparian	-27.686831	152.849316
15	Open Woodlands	-27.704824	152.852238
17	Open Woodlands	-27.703084	152.85283
18	Open Woodlands	-27.698117	152.851595
19	Open Woodlands	-27.692763	152.851973
20	Riparian	-27.693796	152.856158
21	Open Woodlands	-27.706305	152.853749
22	Open Woodlands	-27.695192	152.851773
24	Open Woodlands	-27.680993	152.849438
25	Open Woodlands	-27.6879	152.855082
26	Riparian	-27.690093	152.851318
27	Riparian	-27.704739	152.848695

2.1.2. Incidental Finds

All incidental finds were recorded over the course of the two survey events. Incidental finds included breeding places, vegetation disturbance, digging/foraging sites, scat counts, sightings, tracks (paw and hoof prints), and wallowing holes.

2.1.3. Additional Pest Species

The PMP lists Feral Cats, Foxes, and Wild Dogs as the primary target for the pest monitoring surveys. Feral Pigs were identified in the autumn 2021 baseline survey within the Conservation Area and are therefore considered an additional species to monitor. Feral Pigs are a restricted species under the *Queensland Biosecurity Act 2014*. Remote camera records of Feral Pigs have been included within this document in line with the baseline surveys.

2.2. Data Analysis

Limited data analysis was conducted comparing the baseline survey to the autumn and spring surveys completed in 2025 due to inconsistencies in data collection and data fidelity. During baseline monitoring, simple data analysis was conducted including averages, differences, and similarities. This has been highlighted in the survey limitations below.

2.3. Survey Limitations

The baseline surveys were conducted over a 73-day period with varying lengths of surveys for each survey period. This has led to an overabundance of data with inconsistent results, preventing data analysis of the differences between the baseline survey and the 2025 surveys. Moving forward the surveys will be conducted over a strict two-week period in compliance with the requirements for the PMP. Any extra data observed outside the allocated time period was removed from the data set.

Additionally, due to previous flooding events, remote camera locations were altered slightly in 2023. To account for this, a new location was selected within 50 m of the original sight, and this location was used again in 2024 and 2025. The change of location is not likely to influence results given the mobility of pest species.

3 Results

3.1. Survey Conditions

Climate data for the Conservation Area was taken from the Greenbank (Defence) weather station (140009), located approximately 14 km east of the Conservation Area (BOM, 2025).

Table 5 and Figure 4 Figure 5 illustrate the total rainfall and the mean maximum and minimum temperatures per month in 2025. Autumn and spring climatology demonstrate higher mean temperatures when compared with the two baseline years (2021 and 2022) (Figure 5). Rainfall in autumn 2025 was higher than both autumn 2021 and autumn 2022; rainfall in spring 2025 was lower than both spring 2021 and spring 2022. Overall, from January to November, the Conservation Area received a similar level of rainfall in 2025 and 2021, but significantly less than that received in 2022 (Figure 4).

Table 5: Climate data for months preceding and during the autumn and spring monitoring events for the baseline year (2021), 2022, 2023, 2024 and 2025.

Month	2021 Mean Min. – Max. Temp. (°C)	2022 Mean Min. – Max. Temp. (°C)	2023 Mean Min. – Max. Temp. (°C)	2024 Mean Min. – Max. Temp. (°C)	2025 Mean Min. – Max. Temp. (°C)	2021 Total Rainfall (mm)	2022 Total Rainfall (mm)	2023 Total Rainfall (mm)	2024 Total Rainfall (mm)	2025 Total Rainfall (mm)
Jan	18.6 – 30.4	20 – 29.6	17.9 – 31.5	21.1 – 31.1	19.1 – 30.9	64.6	129.6	101.8	346.6	83
Feb	18.9 – 30.5	18.2 – 29.5	18.1 – 31.7	20.4 – 31.6	19 – 31.1	150	762.2	51.2	89.2	21.6
Mar	18.4 – 28.8	17.9 – 29.4	18.7 – 31.9	18.5 – 28.6	19.9 – 28.7	248.8	171	79.6	102	500
Apr	12.5 – 26.2	15.3 – 27	13.1 – 27.2	15.4 – 27.2	16.2 – 27.1	88.8	45	49.6	97.6	125.6
May	9.7 – 23.9	15.5 – 23.3	6 – 24	11.6 – 23.9	13.2 – 24.6	121.8	327.4	85	30.2	55.6
Jun	6.6 – 21.6	5.7 – 21.2	5.7 – 23.2	6.2 – 22.1	7.8 – 21.1	18	14	7.8	8.4	28.8
Jul	6.4 – 21.3	6.8 – 19.7	5.8 – 22.4	7 – 21	6.5 – 21.6	61.8	89.6	51.4	30.6	76.4
Aug	6.9 – 24.1	6.5 – 22.5	7.5 – 25.3	9.8 – 25.6	7.7 – 22.2	18.6	22	28.8	52.4	23.4
Sep	8.8 – 26.1	10.4 – 24.3	9.9 – 27.2	10.2 – 27.1	10.2 – 26.5	15.2	113.6	37.8	61.4	0.8
Oct	14.1 – 29	14.2 – 26.2	12.4 – 29.3	14.6 – 28.1	15.8 – 31	176.2	122.4	31.8	106.2	96
Nov	16.8 – 27.7	13.4 – 29	16.3 – 28.6	18.5 – 29.3	17.4 – 30.2	207.8	59.8	165.6	218	177.8

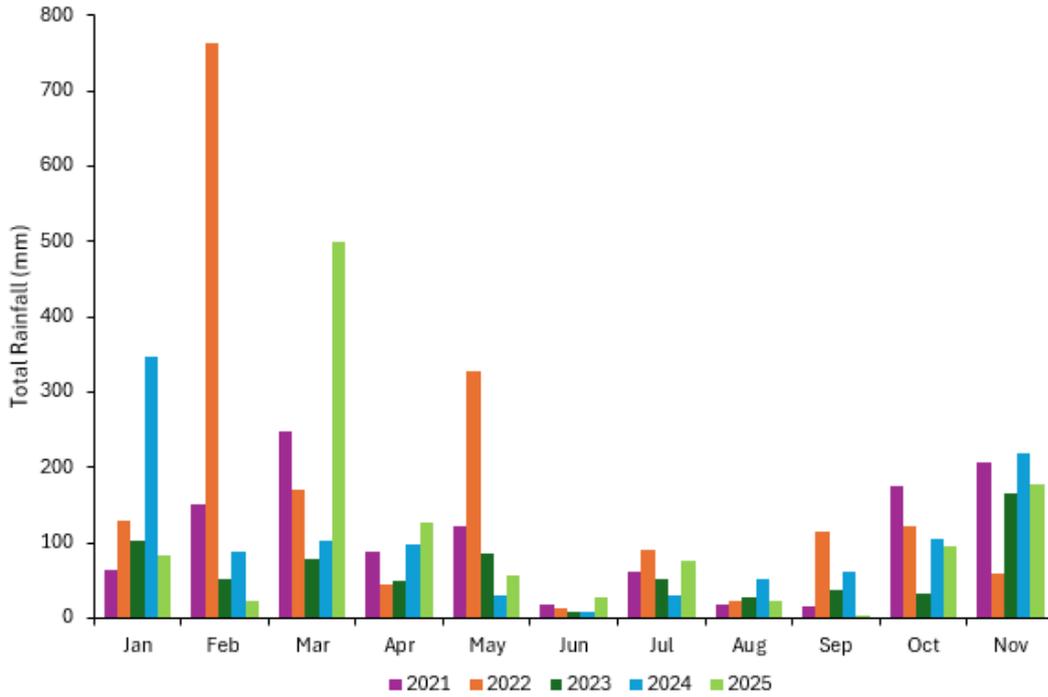


Figure 4: Monthly rainfall totals for the months preceding and during Autumn and Spring monitoring events for the baseline year (2021), 2022, 2023, 2024, and 2025.

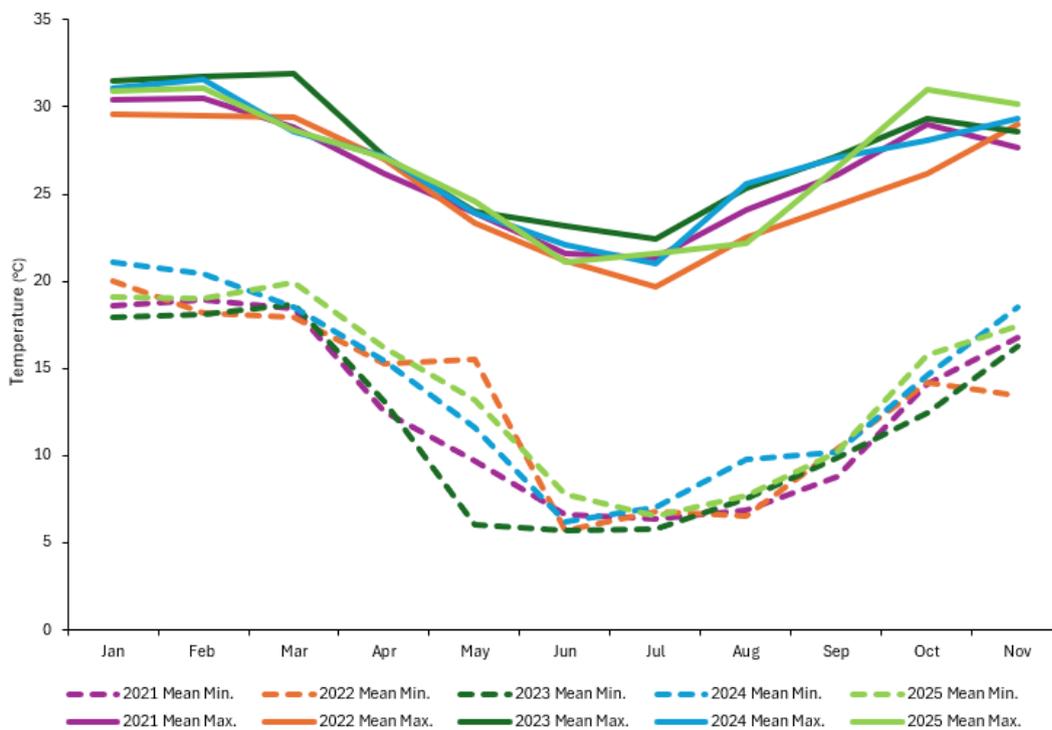


Figure 5: Monthly mean temperatures for the months preceding and during Autumn and Spring monitoring events for the baseline year (2021), 2022, 2023, 2024, and 2025.

3.2. Remote Camera Observations

A total of 33 individuals from three target pest species were identified from 30 remote cameras over the two monitoring events in 2025, as detailed in Table 6. Autumn surveys captured 16 individuals of the targeted pest species across both CAMP and WRSMCE areas, whilst 17 individuals were recorded during the spring survey.

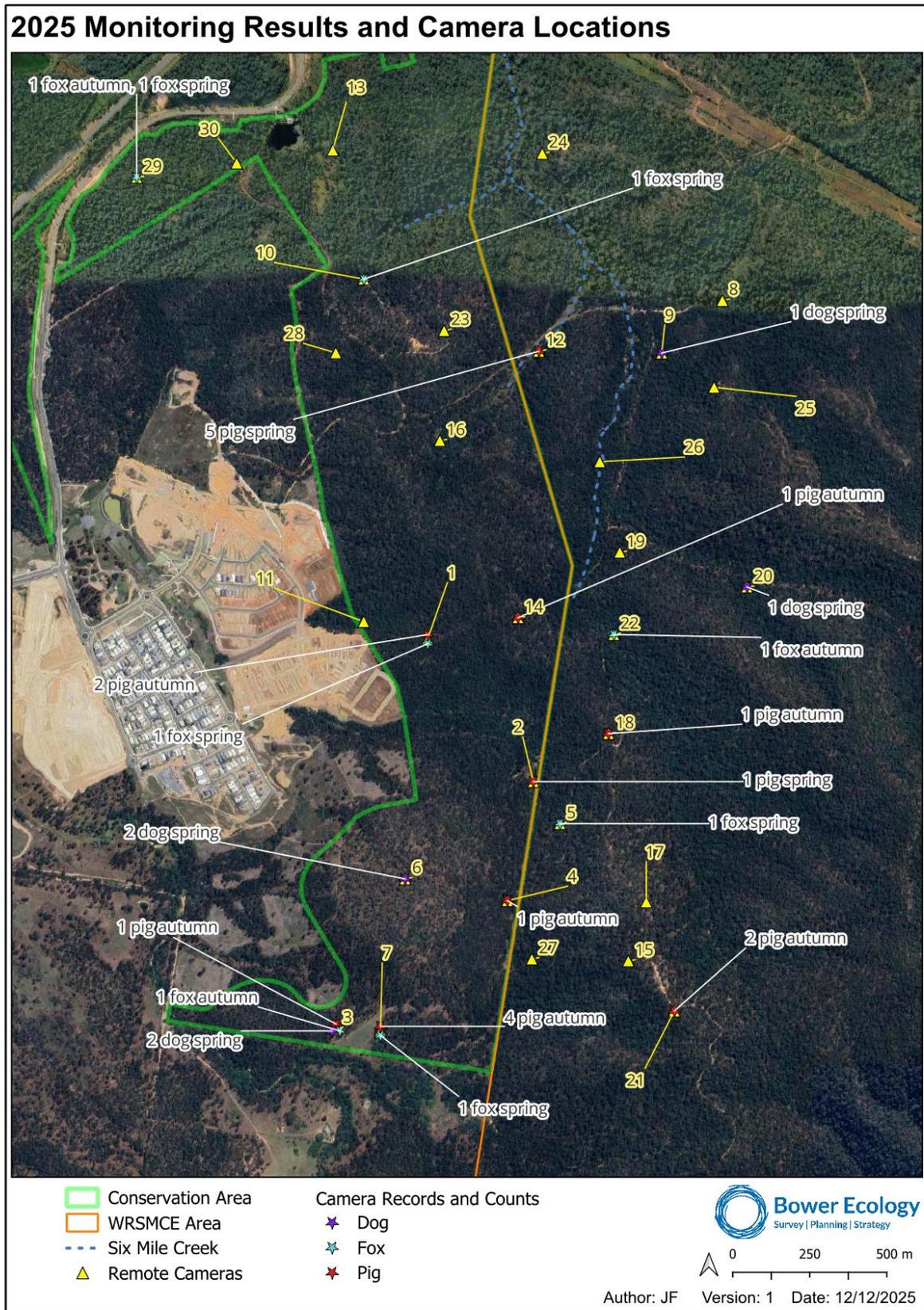
Within the Conservation Area, 21 individual pests were recorded in 2025 whilst within the WRSMCE, 12 individual pests were observed (Table 6 and 7).

A map of all remote camera locations, recorded pest species, and incidental finds can be seen in Figure 6.

Other key results (per Table 6 and 7) for each target pest species include:

- No Feral Cats were detected in the 2025 autumn or spring surveys; this is consistent with 2023 and 2024 monitoring, and less than the baseline.
- There was a marked increase in Wild Dogs recorded in 2024, particularly in the Conservation Area, in comparison to both the 2023 monitoring event and the baseline. The number of Wild Dogs recorded was less in 2025, but still more than the previous monitoring events.
- Total Fox numbers recorded were the highest since monitoring commenced.
- Feral Pig numbers recorded were the highest since 2022 monitoring. Prior to 2025 monitoring, this species showed a decreasing trend over time, however the most recent results show numbers more than 4 times greater than those recorded in the previous year's monitoring.

Appendix A lists the native fauna species recorded on each camera.



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Figure 6: Remote camera locations and the results of 2025 monitoring

Table 6: Sum of results from all years of monitoring

	Feral Cat										Wild Dog										Fox										Feral Pig									
	2021		2022		2023		2024		2025		2021		2022		2023		2024		2025		2021		2022		2023		2024		2025		2021		2022		2023		2024		2025	
	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp	Au	Sp
Season:																																								
Duration (days)	14	14	14	16	14	14	14	14	14	14	14	14	16	14	14	14	14	14	14	14	14	14	16	14	14	14	14	14	14	14	14	14	16	14	14	14	14	14	14	
Conservation Area	1	1	0	1	0	0	0	0	0	0	0	0	1	1	0	6	3	1	4	2	1	2	0	2	0	0	0	2	4	17	9	33	3	1	1	4	0	9	1	
WRSMCE Area	0	0	0	0	0	0	0	0	0	1	0	0	1	3	1	2	3	0	2	2	0	0	3	3	1	3	1	1	1	0	5	3	2	5	3	0	0	3	5	
Total Individuals	1	1	0	1	0	0	0	0	0	1	0	0	2	4	1	8	6	1	6	4	1	2	3	5	1	3	1	3	5	17	14	36	5	6	4	4	0	12	6	

Table 7: Pest species detected in 2025 by survey event and remote camera ID within each survey area including number of individuals recorded.

Pest Species	Survey period	Conservation Area															WRSMCE Area																						
		Cam 1	Cam 2	Cam 3	Cam 4	Cam 6	Cam 7	Cam 10	Cam 11	Cam 13	Cam 14	Cam 16	Cam 23	Cam 28	Cam 29	Cam 30	Cam 5	Cam 8	Cam 9	Cam 12	Cam 15	Cam 17	Cam 18	Cam 19	Cam 20	Cam 21	Cam 22	Cam 24	Cam 25	Cam 26	Cam 27								
Feral cat	Autumn																																						
	Spring																																						
Feral pig	Autumn	2		1	1		4				1												1				2												
	Spring		1																				5																
Red fox	Autumn			1													1										1												
	Spring	1						1	1								1																						
Wild dog	Autumn												1																										
	Spring			2		2																																	

4 Discussion

4.1. Management of the Conservation Area

Between the baseline surveys in 2021 and 2022 and the first annual survey in 2023, a series pest management was conducted by Evolve Environmental Solutions (Evolve, 2023). Invasive Plant and Animal Services (INVPAS) were engaged in September 2023 to continue pest fauna management. Their scope of the pest management work is outlined in Table 8.

Table 8: Pest management conducted in the Conservation Area in 2025

Month	Pest Management Conducted
January – March 2025	<ul style="list-style-type: none"> • Eight DK9 1080 baits were deployed. • Three 1080 Warning and Pest Operation signs were replaced. • Five foot hold traps were deployed. • One wild dog was shot on track heading West from Interpretation Centre. • Six cameras were deployed (4 x cellular in February visit, two static cameras, photos attached) • No feral cats have been observed, trapped, or recorded via cameras.
September – December 2025	<ul style="list-style-type: none"> • Three 1080 Warning and Pest Operation signs were replaced. • Ten foot hold traps were deployed (no capture) (Figure 7). • Six cameras were deployed. • One male dog shot in September (Figure 7, Figure 8). • No feral cats have been observed, trapped, or recorded via cameras.

Ipswich City Council (ICC) was contacted to obtain information on any targeted pest management they may have conducted throughout the WRSME in 2025. No significant changes to the ICC pest management program were made over that period. Weather and track conditions, however, limited access to some areas, thus pest management was not as comprehensive as planned (P. Smith, Natural Environment Manager at Ipswich City Council, pers. comm., 19/1/2026).



Figure 7: Pest management works undertaken in September – December 2025 (figure supplied by INVPAS).



Figure 8: Wild Dog shot by INVPAS on 9th of September at approximately 9:22 am (photo supplied by Evolve Environmental Solutions).

4.2. Discussion of Results

The 2025 surveys recorded a total of 33 pest fauna individuals, of which 21 were inside the Conservation Area and 12 inside the WRSME. The remote camera records demonstrated that distribution of pest species was relatively consistent across the site (Figure 6), indicating the recorded species utilised the entire landscape, although Feral Pigs did appear to favour low lying wet areas.

Although at this stage the dataset does not lend itself to rigorous statistical analysis¹, the 2025 results show that Wild Dog and Fox numbers were higher than those recorded during baseline surveys, and Feral Pig numbers were higher than those recorded during the previous two monitoring periods in 2023 and 2024. This increase may be explained by a combination of factors:

- Construction works commenced in Precincts 4 and 5 of the White Rock development, adjacent to the Conservation Area. Disturbance from these works could have displaced animals from the construction site into the adjacent Conservation Area.
- On average, monthly temperatures were higher than those recorded during the baseline years.
- Ex-tropical Cyclone Alfred brought significant rainfall in March, the month preceding the autumn 2025 monitoring event.
- It is probable that the abovementioned climatic factors increased the availability of resources and habitat for the pest species and could have contributed to the increased pest numbers recorded in 2025 in comparison to baseline surveys and the previous monitoring event.

4.3. Observations and Recommendations

Targeted pest control was initially focused on the southern Conservation Area with emphasis on the riparian area and man-made lakes due to the high concentration of activity for all pest species (as reported in Eco Logical Australia 2022). The surveys conducted in 2025, however, recorded pest fauna across the site. Moving forward, pest management should concentrate on the northern and central parts of the Conservation Area in addition to continual management of the southern Conservation Area.

Feral Pigs

Individual Feral Pigs were detected 10 times in the Conservation Area and 8 times in the WRSME. These numbers are higher than those recorded during the previous two monitoring events. Similarly to previous monitoring events, observations of Feral Pigs were more frequent throughout the autumn survey than the spring survey, coinciding with higher rainfall and average temperatures (Table 5, Figure 4, and Figure 5). The occurrence of high rainfall associated with ex-Tropical Cyclone Alfred in March 2025 (Figure 4) would have increased availability of habitat and resources for this species in comparison to previous years, particularly during the autumn survey period. This is likely to have influenced the higher counts recorded in overall in 2025, as well as the higher numbers recorded in autumn than spring.

Detection of the pest occurred more frequently in the south than the north of the Conservation Area, clustering in valleys and waterways as seen in Figure 6. Observations near waterways and constructed lakes suggest Feral Pigs are likely aiding further degradation of the landscape and the dispersal of weeds throughout these areas.

¹ Due to the limited number of observations across each season, and across the years. Also, due to the variables not being a quantitative metrics (i.e., pest management effort, other variables).

To optimise results the management of Feral Pigs should be concentrated close or next to permanent water sources or gullies. As the pest species was previously dispersed throughout both the Conservation Area and WRSMCE, any Feral Pig management should be continue to be actioned by both the ICC and Intrapac concurrently to ensure full coverage. The Feral Pig control program should be scheduled after the wet season to reflect the higher activity of the species. The populations will likely concentrate in areas of permanent water in the dry season.

Foxes and Wild Dogs

Foxes were observed 8 times throughout the study, with 2 records in the WRSMCE and 6 in the Conservation Area. This is double the number of Foxes recorded during 2024 monitoring, where 4 individuals were observed, only in the WRSMCE. One Fox was recorded preying on an unidentified animal (Figure 9). While total numbers of Foxes have remained relatively consistent since monitoring commenced, 2025 counts were the highest yet recorded.

Wild Dog sightings were recorded 7 times throughout the survey period: 5 times in the Conservation Area and twice in the WRSMCE. These Wild Dog numbers are half those recorded in 2024, but higher than counts from any other monitoring event. This indicates a continuation of the increasing trend in the occurrence of this species that was first noted in the 2024 monitoring report, despite targeted pest management works (Table 8). While reasons for this are unclear, it could be attributed to recent construction activity in White Rock Precincts 4 and 5. Disturbance of habitat and machinery movement are likely to have displaced animals from the construction sites, causing them to relocate to the adjacent CAMP area where food and shelter were available.

Both Foxes and Wild Dogs utilised the entire landscape, as evident in Figure 6. Foxes and Wild Dogs were observed to have similar areas of interest, overlapping in habitat. This may be due to similar habits in diet, resource requirements and shelter (Glenn and Dickman, 2014). The shared space creates competition between the species, limiting their carrying capacity due to resource scarcity. The increase in Fox numbers and decrease in Wild Dog numbers in comparison to 2024 monitoring results could be attributed to this competition for resources.

The regulated poison 1080 is a standard method for Fox baiting programs. Fox baiting will also manage Wild Dog populations. The Wild Dog and Fox baiting program should be in conjunction with the Department of Agriculture, Water and Environment of Australia and PestSmart (Sharp, 2012).

The poison 1080 has been shown to impact native carnivorous species including the Lace Monitor (*Varanus varius*) and threatened mammals including the Spotted-tail Quoll (*Dasyurus maculatus*) and Brush-tail Phascogale (*Phascogale tapoatafa*). The Spotted-tail Quoll has a low likelihood of occurrence within both management areas, so impacts to this species are unlikely. Impacts to Lace Monitors and Brush-tail Phascogales can be mitigated by correct dosage and baiting outside of the winter breeding period when young are dependent on females.



Figure 9: Image recorded by camera 5 during spring 2025 surveys of a fox preying on an unidentified animal species (see yellow circle).

Feral Cats

No observations of Feral Cats were recorded in the surveys conducted in autumn and spring of 2025; this is consistent with 2023 and 2024 results. INVPAS also noted in their progress reports that no feral cats were observed, trapped, or recorded via cameras during their management works in 2025. Feral Cats were the least observed species in the baseline survey and have since seen a reduction in evidence of their presence (Table 6). This may be due to the changing habitat that is potentially no longer suitable for the species, or the increase in Wild Dog and Fox numbers and the subsequent increased competition for resources. Alternatively, Feral Cats may still be present but due to low density populations over a large range no observations were recorded in the 2023, 2024, or 2025 surveys (DCCEEW, 2023). In prior years the species was observed in Northern areas of the Conservation Area however no such sightings or evidence have surfaced recently.

Minimal management is required for Feral Cats as no activity was captured in this annual survey. However, continual monitoring is required. If any Cat activity is evident in the future, further pest management should be put into place. Refer to Eco Logical baseline report for management solutions (Eco Logical, 2022).

5 Conclusion

Whilst limitations applied to comparison of 2025 pest data to baseline data, it appears that, with the exception of Feral Cats, pest fauna numbers have increased across both the Conservation Area and the WRSMCE. While the reasons for this are unclear, it could be attributed to both the disturbance of construction works in adjacent habitat areas and the resulting displacement of animals into the Conservation Area and WRSMCE, and climatic conditions leading to an increase in resource availability across the monitoring site. It is recommended that pest control be concentrated in the northern and central sections of the Conservation Area, in addition to continual management in the south. The next round of monitoring will take place in autumn and spring 2026.

6 References

- Bower Ecology Pty Ltd, 2021. White Rock Koala Monitoring Report - Report No. 2 (2021). Prepared for Intrapac Property Pty Ltd.
- Bower Ecology Pty Ltd, 2022. White Rock Vegetation Monitoring Report 2022. Version 1, Prepared for Intrapac White Rock Pty Ltd.
- Bower Ecology Pty Ltd, 2025. White Rock Vegetation Monitoring Report 2024. Version 1, Prepared for Intrapac White Rock Pty Ltd.
- Bureau of Meteorology (BOM), 2022. Greenbank (Thompson Rd), station number 40794. Available: <http://www.bom.gov.au/climate/data/>.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2023. Feral Cats. Australian Government. Accessed online at: <https://www.dcceew.gov.au/environment/invasive-species/feral-animals-australia/feral-cats>.
- Department of Environment and Heritage Protection [DEHP], 2014. Flinders Karawatha Corridor Management Strategy 2014-2019. Queensland Government. Accessed online at: https://environment.des.qld.gov.au/data/assets/pdf_file/0022/90643/flinders-karawatha-management-strategy.pdf.
- Department of the Environment and Energy, 2014. Listed Key Threatening Processes. Accessed online at: <http://www.environment.gov.au/cgi-bin/sprat/public/publicgetkeythreats.p>, 2014.
- Eco Logical Australia, 2017. White Rock Ecological Assessment. Prepared for Intrapac Property Pty Ltd.
- Eco Logical Australia, 2020a. White Rock Conservation Area Management Plan. Prepared for Intrapac Property Pty Ltd.
- Eco Logical Australia 2020b. *White Rock Conservation Area Pest Management Plan*. Prepared for Intrapac Property Pty Ltd
- Eco Logical Australia, 2021. White Rock Vegetation Monitoring Report - Baseline. Prepared for Intrapac Property Pty Ltd.
- Evolve, 2023. White Rock Pest Management. Prepared for Intrapac Property Pty Ltd.
- Evolve 2024. CAMP Pest Fauna Monitoring Report – August to December 2024. Prepared for Bower Ecology and Intrapac Property Pty Ltd.
- Glen, A.S. and Dickman, C.R. (2014). *Carnivores of Australia: past, present and future*. Collingwood, Vic.: Csiro Publishing.

Lopez, J., Hurwood, D., Dryden, B., & Fuller, S. (2014). Feral Pig Populations Are Structured at Fine Spatial Scales in Tropical Queensland, Australia. *PLoS ONE*, 9(3), e91657. <https://doi.org/10.1371/journal.pone.0091657>

Meek, P., Saunders, G., 2000. Home range and movement of Foxes (*Vulpes vulpes*) in coastal New South Wales, Australia. *Wildlife Research* 27, 663–668. Accessed online at: <https://doi.org/10.1071/WR98030>

Pirie, T., Thomas, R., Fellowes, M., 2022. Pet Feral Cats (*Felis Feral Catus*) from urban boundaries use different habitats, have larger home ranges and kill more prey than Feral Cats from the suburbs, *Landscape and Urban Planning*.

Sharp, T. (2012). Ground baiting of wild dogs with 1080. Canberra: PestSmart Toolkit publication. The Centre for Invasive Species Solutions.

Wishart J (2015). A field guide to poison baiting: Feral Pigs. PestSmart Toolkit publication. Centre for Invasive Species Solutions, Canberra, ACT

Appendix A: List of all species observed in the Conservation Area and WRSME during 2025 Pest Monitoring

Common Name	Scientific Name	Remote Camera ID																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Antechinus sp.	<i>Antechinus sp.</i>		Y										Y						Y		Y							Y			
Australian Boobook	<i>Ninox boobook</i>											Y																			
Australian Brush turkey	<i>Alectura lathamii</i>	Y	Y	Y		Y			Y	Y	Y		Y		Y		Y				Y		Y	Y		Y	Y	Y		Y	Y
Australian Magpie	<i>Gymnorhina tibicen</i>	Y															Y								Y						
Australian Owlet nightjar	<i>Aegotheles cristatus</i>																					Y									
Bar-shouldered Dove	<i>Geopelia humeralis</i>													Y		Y															Y
Bearded dragon	<i>Pogona barbata</i>																								Y						
Black rat*	<i>Rattus rattus*</i>		Y						Y	Y	Y	Y	Y	Y									Y						Y		
Black-striped wallaby	<i>Macropus dorsalis</i>		Y			Y					Y		Y			Y							Y			Y					
Brown Hare*	<i>Lepus capensis*</i>	Y	Y	Y			Y																								Y
Brush-tailed phascogale	<i>Phascogale tapoatafa</i>	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	
Brush-tailed possum	<i>Trichosurus vulpecula</i>	Y	Y		Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	
Bush Rat	<i>Rattus fuscipes</i>				Y																										
Cane toad*	<i>Rhinella marina*</i>	Y		Y		Y		Y	Y	Y			Y					Y											Y		Y
Eastern grey kangaroo	<i>Macropus giganteus</i>	Y			Y	Y	Y	Y			Y		Y	Y		Y									Y				Y		Y
Eastern whip bird	<i>Psophodes olivaceus</i>								Y																						
Eastern water dragon	<i>Intellagama lesueurii</i>		Y									Y																			
Eastern yellow robin	<i>Eopsaltria australis</i>		Y																											Y	
European hare*	<i>Lepus europaeus*</i>			Y			Y					Y				Y															
Feral Pig*	<i>Sus scrofa*</i>	Y	Y	Y	Y		Y					Y		Y					Y			Y									
Gould's Goanna	<i>Varanus gouldii</i>																								Y	Y					
Grey butcher bird	<i>Cracticus torquatus</i>								Y															Y							
Grey shrikethrush	<i>Colluricincla harmonica</i>																											Y			
House Mouse	<i>Mus musculus</i>											Y										Y									
Jacky Winter	<i>Microeca fascinans</i>					Y																									
Lace monitor	<i>Varanus varius</i>										Y		Y	Y															Y		Y
Laughing kookaburra	<i>Dacelo novaeguineae</i>			Y			Y				Y		Y						Y					Y							
Long-nosed Bandicoot	<i>Perameles nasuta</i>	Y																													
Northern brown bandicoot	<i>Isodon macrourus</i>		Y	Y			Y			Y		Y	Y				Y					Y	Y			Y		Y			
Peaceful Dove	<i>Geopelia placida</i>																													Y	
Pheasant Coucal	<i>Centropus phasianinus</i>					Y																									
Pied Currawong	<i>Strepera graculina</i>				Y																							Y			
Red Fox*	<i>Vulpes vulpes*</i>	Y		Y	Y	Y	Y	Y			Y												Y							Y	
Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>		Y																												
Red-browed Finch	<i>Neochmia temporalis</i>																						Y								Y
Red-necked wallaby	<i>Notamacropus rufogriseus</i>	Y		Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y			Y	Y	Y	
<i>Notamacropus sp.</i>	<i>Notamacropus sp.</i>																		Y												
Short-beaked echidna	<i>Tachyglossus aculeatus</i>										Y		Y			Y											Y			Y	Y
Squirrel Glider	<i>Petaurus norfolcensis</i>					Y																									Y
Swamp wallaby	<i>Wallabia bicolor</i>			Y					Y						Y		Y		Y				Y			Y	Y				
Tawny Frogmouth	<i>Podargus strigoides</i>	Y																													

Appendix C: Pest Management Progress Report



Pest Fauna Monitoring Report – September - Dec 2025

1. Introduction Invasive Plant and Animal Services (INVPAS) has continued on-ground monitoring and control operations for the White Rock CAMP Rehabilitation Project. This report summarizes pest management activities undertaken up to September – Dec 2025

2. General Updates

- Wild activity seen via prints on main access tracks, remote cameras deployed for three 6 trap nights in September and December visit, had no activity (dogs, foxes or pigs)
- Deployed 10 x wild dog/Fox traps (September and December visit) No capture
- One male dog shot September on Eastern track – nighttime.
- Giant Rats Tail grass levels were notably high again along tracks, slashed in some areas and care was taken to avoid spreading weed seeds.

3. Control Efforts & Monitoring Results (September – Dec 2025)

- 3 x 1080 Warning and Pest Operation signs were replaced.
- 10 x wild dog traps were deployed.
- 6 x cameras deployed
- No feral cats have been observed, trapped, or recorded via cameras.

4. Challenges & Observations

- Access to the site is harder through the Southern developments.
- Bollards are easier to get through with the codes.
- Still trespassing of motorbikes, 2 interactions on Dec visit, they just blew straight past
- Mountain bikers too, tracks seen on main eastern tracks daily.
- Giants rats tail on tracks, hard not to go over seeded heads

5. Upcoming Actions

If deployed, will need further notifications send out to adjoining neighbours to use anything to do with 1080 baits etc.

Dog Trap #1



Dog Trap #2



Dog Trap #3



Dog Trap #4



Dog Trap #5



Mapping



Author

Name: Clynton Spencer

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Date: 14/1/2026

Appendix D: Vegetation Management Progress Reports



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Progress Report
CAMP Rehabilitation Projects
White Rock



Quarter 2 - 2025

1 Introduction

In February 2021, Evolve Environmental Solutions (Evolve) was engaged to undertake maintenance of the White Rock CAMP Rehabilitation Project.

On-ground works commenced in July 2021. A total area of 2,490,000m² is required to be maintained. This is split into 3 zones, as per Image 1 - Proposed CAMP Implementation Staging from RFT.

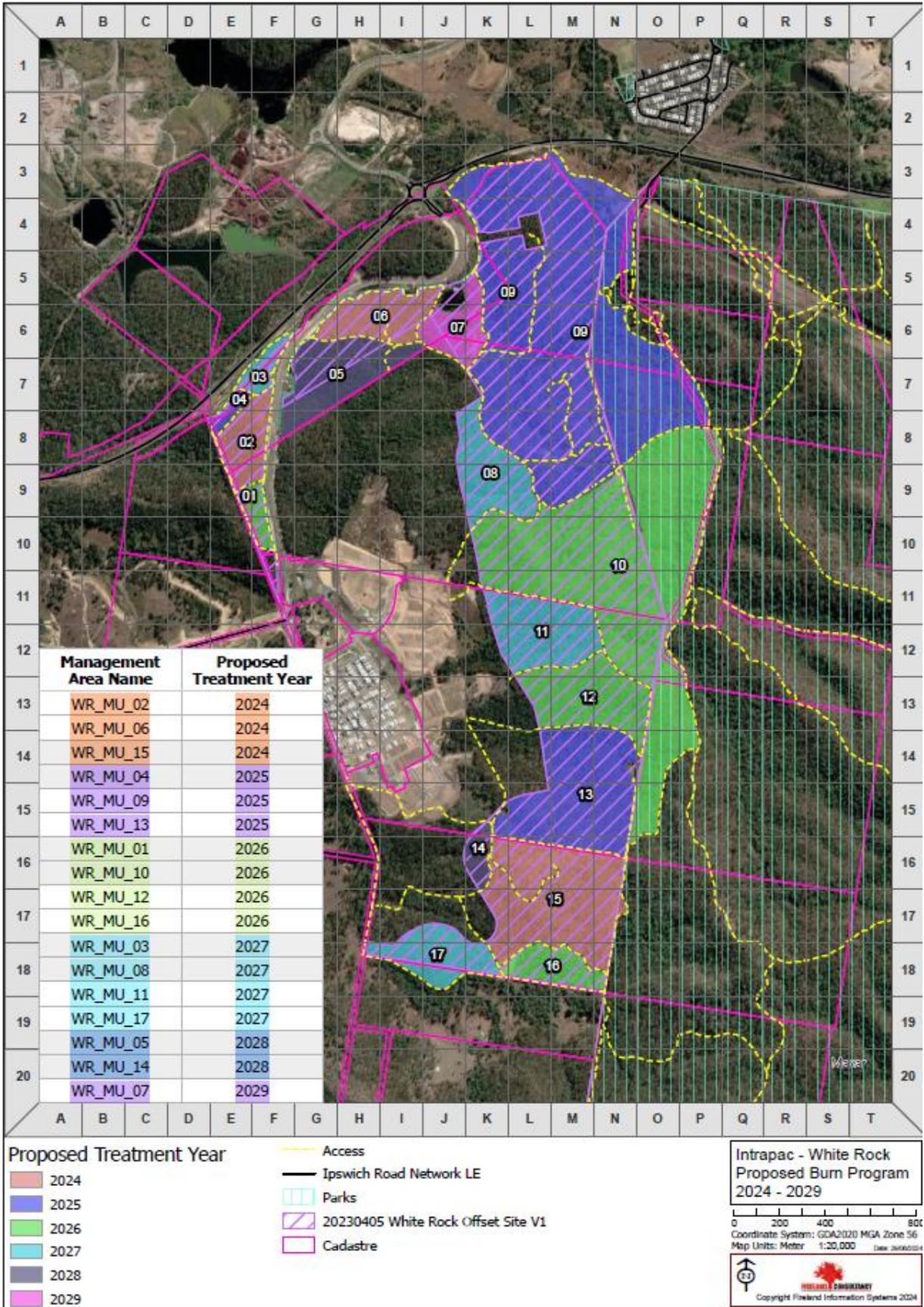
MZ1: Riparian restoration

MZ2: Assisted regeneration

MZ3: Regeneration

This progress report provides a summary of Rehabilitation activities carried out during the months of Quarter 2, 2025: April, May & June

Figure 1: Proposed CAMP Implementation Staging from RFT – New Operating Map



No areas of Secondary weeding work in Zones 1, 2 and 3 were completed over this quarter (April, May & June).

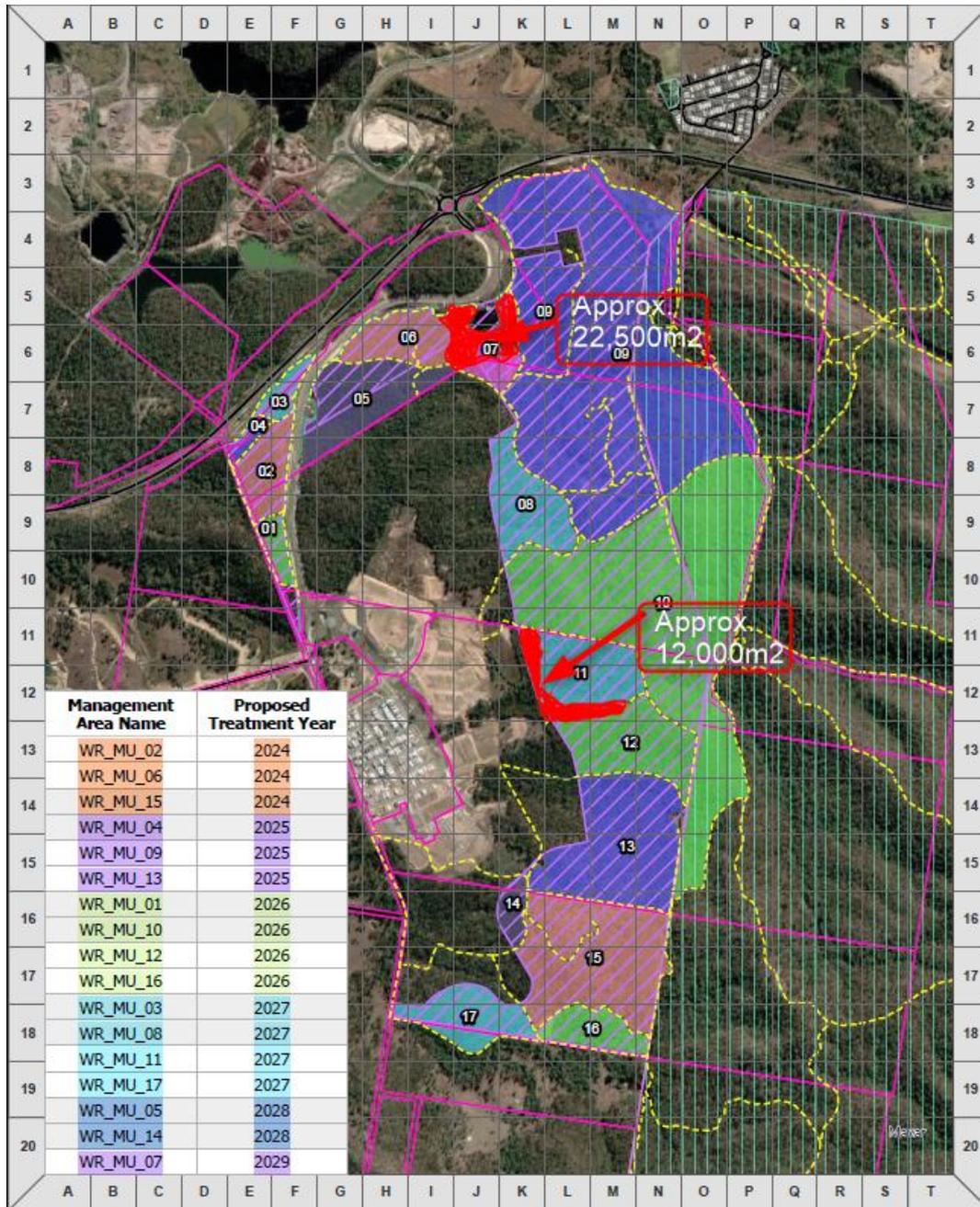
Primary Maintenance Conducted	April	May	June
Area 1	-	-	-
Area 2	-	-	-
Area 3	-	-	-
Area 4	-	-	-
Area 5	-	-	-
Area 6	-	-	-
Area 7.....up to Area 17	-	-	-

Secondary/Follow up Maintenance Conducted	April	May	June
Zone 1	-	-	-
Zone 2	-	-	-
Zone 3	-	-	-

Daily Record sheets and claim summaries of the works carried out have been filed and submitted.

Below is a map of extracted data from these work reports during the months of April, May & June.

Figure 2: Works carried out this quarter as per submitted Inspection Evidence reports and transposing data onto the Proposed CAMP Implementation Staging from RFT



Burn area 6 & 7 slashed grasses, sprayed out weeds using a glyphosate mixture. Entrance to Camp via sales office, removed glycine from fence and gate and treated with herbicide. Melaleuca irbyana tubes (9no.) planted in burn area 7. Plants are doing well. See extract of approx. location below.

Burn area 11 slashed lantana as there is a large infestation. We want to access this area in the 3rd quarter as it has not been serviced for approx. 12 months due to new development works. Access track severely eroded due to TC Alfred.

Location of 9 x Melaleuca irbyana's planted in April 2025



Figure 3: Proposed all weather access tracks to enable unhindered access during wet periods.



Comments: During wet periods or rain over 20mm can take up to 1.5 weeks to traverse through the civil site albeit the Camp itself is traversable due to elevated areas. If we witness rain of over 20mm and have an all-weather access track we can be on site with 2-3 days. The all-weather track just needs to be a roadbase track to enable our work vehicles, tracks and machines to gain access.

2 Scope of works progress

As per Evolve's 2024 Proposed Works Report:

Month	Proposed Works	Completed	Unfinished work to be completed in (Month)
April	Maintenance to areas 6 & 7. Tractor Slashing. And Melaleuca irbyana plantings x 9 no.	Approx. 11,000m ²	Follow up spray of areas 6 & 7.
	No Pest Management		
May	Follow up spray of areas 6,7. Continued onto area 9 slashing pasture grasses, lantana, BGW etc Removed glycine of front gate near sales office. Slashed areas 11 & 12 of Lantana	Approx. 11,500m ² + 12,000m ²	Follow up spray of areas 9,11 & 12
	No Pest Management		
June	Follow up spray areas to 6,7 9, 11 & 12	Approx. 23,500m ²	In July
	No Pest Management		

No further burn works have been carried out. Temporarily ceased.

3 Non-compliance incidents

N/A

4 Delivery Issues

Erosion to tracks in areas 11 & 12 still hasn't been resolved. We need to gain access into here to treat lantana before weather warms up. Also access to the southern areas 14,15,16, & 17 cut off due to new development to Precinct 5.

5 Recommendation.

All weather tracks to be installed to allow access to WR camp in the event of rain. All weather access track (Compacted Road base) will enable us to access the site early.

6 Upcoming Work

Slashing to areas 13 -17 if access is granted/accessible. Planting of Mel irb in low lying areas 15 and 16 Approx. 24 x 14cm plants to be planted. Pest management to start on 28 visit routine. Pest management to restart August.





Appendix E: Vegetation Monitoring Report 2025

White Rock Conservation Area Management Plan

Vegetation Monitoring Report 2025 (Year 6)

Prepared for Intrapac White Rock Pty Ltd

26 February 2026



Document Tracking

Project Name	White Rock Vegetation Monitoring Report 2025
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Executive Summary

This report presents findings from the sixth year of Conservation Area Management Plan (CAMP) management for EPBC2014/7388. The White Rock development project includes a 249 ha Conservation Area designed to offset impacts to Koala (*Phascolarctos cinereus*) and Grey-headed Flying Fox (*Pteropus poliocephalus*) habitats. This area is divided into three management zones (MZ1–MZ3) based on ecological condition and required rehabilitation efforts. Since the initial baseline monitoring in 2021, significant efforts have been made to restore vegetation, control invasive species—particularly *Lantana camara* and *L. montevidensis*—and meet the performance criteria outlined in the CAMP. The 2025 monitoring event builds on data collected in previous years.

All methods employed were consistent with past monitoring and the approved CAMP. Monitoring incorporated BioCondition assessments (Eyre et al., 2015), rapid Lantana assessments, and photo monitoring across all management zones. Results indicate steady ecological improvement, especially in MZ3, where one site (Site 2) reached the highest BioCondition class for the first time since monitoring commenced. *L. camara* cover has decreased by 89% from baseline, demonstrating the effectiveness of ongoing weed management efforts. Approximately 10.6 ha of primary weed management and 68.15 ha of secondary weed management were undertaken in the 12 months preceding the June 2025 monitoring event. Some Lantana regrowth, however, was observed, and *L. montevidensis* showed fluctuating trends, highlighting the need for continued control. Nonetheless, this species has also experienced a significant reduction in cover since baseline monitoring occurred. High rainfall associated with ex-Tropical Cyclone Alfred in early 2025 likely contributed to increases in native vegetation cover and debris, positively influencing some ecological indicators such as species richness and habitat, measured as littler cover and total length of fallen logs.

The programme of rehabilitation works met the first six years of the CAMP strategy for weed management relevant to this report – primary weed treatment has occurred in target areas and has been successful; continued maintenance work is required to successfully reduce the abundance of Lantana species. Revegetation works, however, are incomplete. Planting of threatened species *Melaleuca irbyana* is scheduled for completion by the end of February 2026.

Overall, the data shows that CAMP implementation is yielding positive environmental outcomes. Vegetation quality is improving across all zones, although the rate of recovery varies depending on baseline condition. Adaptive management practices, including targeted burns and revised monitoring strategies, have enhanced rehabilitation success. Recommendations for the next cycle include continued Lantana management, expanded ecological burning, and close observation of longer-term vegetation trends. These actions are essential to ensure the Conservation Area continues progressing toward the habitat and compliance goals set by the EPBC Act.

1 Introduction

1.1. Project Background

In December 2019, approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) was received by Intrapac Property QLD Pty Ltd (Intrapac) for the development of a mixed-use sub-division and associated infrastructure (the project) at White Rock in the Ripley Valley (EPBC 2014/7388). The project encompasses 473 ha (project area), including a 249 ha Conservation Area (Figure 2).

There are multiple environmental outcomes intended for the project's development's Conservation Area. These outcomes include in-situ biodiversity offsets aimed to reduce the impacts of the project. Specifically, the Conservation Area comprises dedicated offset areas to protect Koala and Grey-headed Flying Fox habitat values, as defined within the EPBC Act.

An approved Conservation Area Management Plan (CAMP) prescribes the monitoring and management of the Conservation Area. This document intends to ensure the offset area in the Conservation Area achieves the habitat targets for Koala and Grey-headed Flying Fox.

Disruptions caused by the Coronavirus pandemic resulted in scheduling delays in 2020. This included delays to all works related to the CAMP. In February 2021 a variation to the initial approval was approved. This approved variation allowed postponement of CAMP actions, with an adjusted schedule also provided within the varied approval.

Annual monitoring reports are required under the conditions of the approval and under the CAMP, and these will inform the Annual EPBC Act Compliance Report. An adaptive management approach has been employed in the CAMP to ensure management practices will be guided by monitoring results. Management, monitoring and reporting requirements are detailed in the CAMP for the following:

- Vegetation rehabilitation and management
- Koala population monitoring
- Bushfire management
- Pest monitoring and management

Implementation of the CAMP began in 2019. CAMP implementation will continue for the duration of the on-maintenance period of the project (the first 11 years), after which handover to the Ipswich City Council and integration into the adjacent White Rock – Spring Mountain Conservation Estate (WRSMCE) is planned. Baseline vegetation monitoring occurred in 2021, and this report addresses the results of the fifth round of annual vegetation monitoring for the on-maintenance period of the project. Vegetation monitoring informs the following areas of the CAMP performance criteria:

- Revegetation management requirements
- Weed control
- Bushfire management
- Native tree management

The general intention for the Conservation Area is to allow an improvement in habitat value for species listed as MNES – the Koala and the Grey-headed Flying Fox; as well as to meet the performance and completion criteria listed in the EPBC Act approval. Three distinct management zones (MZs) are defined within the Conservation Area under the CAMP. The categorisation of these zones details the type and degree of effort necessary to reach specific rehabilitation objectives. The zones are as follows (Figure 2):

- **MZ1: Riparian Restoration** - the portion of the Conservation Area adjacent to drainage lines and the property boundary, with a total area of approximately 30 ha. This zone includes areas of exotic pasture with no canopy present, and is characterised by higher amounts of water, nutrients, and disturbance. As a consequence of these factors, exotic species are present in higher densities than in the other zones.
- **MZ2: Assisted Regeneration** - the portion of the Conservation Area that has currently low resilience or is likely to have low resilience in the future, with a total area of approximately 91 ha. This zone includes areas of dense Lantana towards the south of the site and a 20 m buffer on all development edges which will be subject to greater impacts in the future.
- **MZ3: Regeneration** - the remainder of the Conservation Area with a total area of approximately 128 ha. This zone is in good condition with low weed density throughout.

1.2. Objectives and scope of work

The objective of this report is to provide the results of the fourth round of vegetation monitoring, to report on any changes in comparison to baseline surveys conducted in 2021 and monitoring undertaken in 2022, 2023 and 2024. This addresses the CAMP performance criteria which requires annual monitoring and reporting (Appendix A).

1.2.1. Monitoring requirements

This vegetation monitoring requires BioCondition assessments (Eyre *et al.*, 2015), a rapid assessment *Lantana camara* survey, and an assessment of the results of both these surveys against the objectives of the CAMP and the conditions of the EPBC Act approval.

The fourth round of monitoring surveyed established sites within the three management zones (MZ1, MZ2, MZ3) to assess any changes in the four years since baseline monitoring was conducted. Parts of the Conservation Area were heavily impacted by Lantana species when the CAMP was developed; *L. camara* (Bush Lantana) and *L. montevidensis* (Creeping Lantana) were the dominant weed species across the site. To monitor improvement following weed removal works, a rapid Lantana assessment is required to be undertaken as part of each monitoring event.

1.2.2. Management years

This report represents monitoring undertaken in year 6 of CAMP works program, as scheduled in the EPBC Act approval (EPBC 2014/7388). For reference, the management years are measured against the approval of the action on 3/12/2019). That is:

Year 1 means the period until 12 months from the date of the approval of the action
Year 2 means the period until 24 months from the date of the approval of the action
Year 3 means the period until 36 months from the date of the approval of the action
Year 4 means the period until 48 months from the date of the approval of the action
Year 5 means the period until 60 months from the date of the approval of the action
Year 6 means the period until 72 months from the date of the approval of the action
Year 7 means the period until 84 months from the date of the approval of the action
Year 8 means the period until 96 months from the date of the approval of the action
Year 9 means the period until 108 months from the date of the approval of the action
Year 10 means the period until 120 months from the date of the approval of the action
Year 11 means the period until 136 months from the date of the approval of the action
Year 12 means the period until 148 months from the date of the approval of the action
Year 16 means the period until 192 months from the date of the approval of the action
Year 21 means the period until 252 months from the date of the approval of the action

The next monitoring event (year 7) will occur in 2026. Ongoing monitoring by Intrapac will then occur on an annual basis for the first 11 years (on-maintenance period) of the CAMP program.

1.3. Study Site Description

The development is located in the Ripley Valley, 8 km east of the Ripley urban core, 8 km west of the Springfield Town Centre, 15 km from the Ipswich CBD, and 35 km from the Brisbane CBD (Figure 1).

Positioned just south of the Centenary Highway, the northern boundary of the development is delimited by the highway. To the west of the development is an area cleared in lowland sections for agricultural purposes that is expected to transition into urban development in the future as part of the Ripley Valley Priority Development Area (PDA). Within the Conservation Area is a matrix of mature / maturing vegetation (Figure 3). This vegetation extends to the east of the development boundary into the WRSMCE, forming part of an extensive area of vegetation associated with the Flinders Karawatha Corridor (DEHP 2014).

1.3.1. Vegetation Communities

Within the Conservation Area, eight broad vegetation communities were identified during initial ecological surveys (ELA 2017). These communities, and their areas, are listed in Table 1 and shown in Figure 3.

Table 1: Vegetation communities within the Conservation Area (ELA 2017)

Community	Area (ha)
Acacia +/- scattered Eucalypts (i.e. <i>Eucalyptus tereticornus</i> , <i>E. crebra</i>)	3.8
Dam	1.1
Exotic Grassland +/- sparse Acacia and Eucalypts (i.e. <i>E. tereticornus</i> , <i>E. crebra</i>)	5.5
<i>E. tereticornis</i> (Forest Red Gum) on alluvium	0.8
<i>E. tereticornis</i> , <i>Lophostemon suaveolens</i> (Swamp Box) and <i>E. crebra</i> (Narrow-leaved Ironbark).	8.1
<i>E. crebra</i> , <i>E. tereticornis</i> , <i>E. melanophloia</i> (Silver Leaved Ironbark)	15.6
<i>Corymbia citriodora</i> (Spotted gum)	9.8
<i>C. citriodora</i> , <i>E. crebra</i> , <i>E. melanophloia</i> , and other Eucalypts	183.1
<i>E. acmenoides</i> (White Mahogany), <i>E. major</i> (Grey Gum), <i>C. citriodora</i>	21.6
Total	249.4

The central part of the Conservation Area is dominated by *C. citriodora* forest and woodland on sandstone slopes.

The northern section of the Conservation Area is dominated by *E. acmenoides*, *E. major* and *C. citriodora* forest. The lower elevations of the Conservation Area, particularly in the south, are dominated by *E. tereticornis*, *L. suaveolens* and *E. crebra*.

A basalt hill in the south of the Conservation Area contains *E. crebra*, *E. tereticornis* and *E. melanophloia*.

White Rock–Spring Mountain Conservation Estate to the east of the Conservation Area consists of over 2500 ha of mostly intact and generally remnant vegetation.

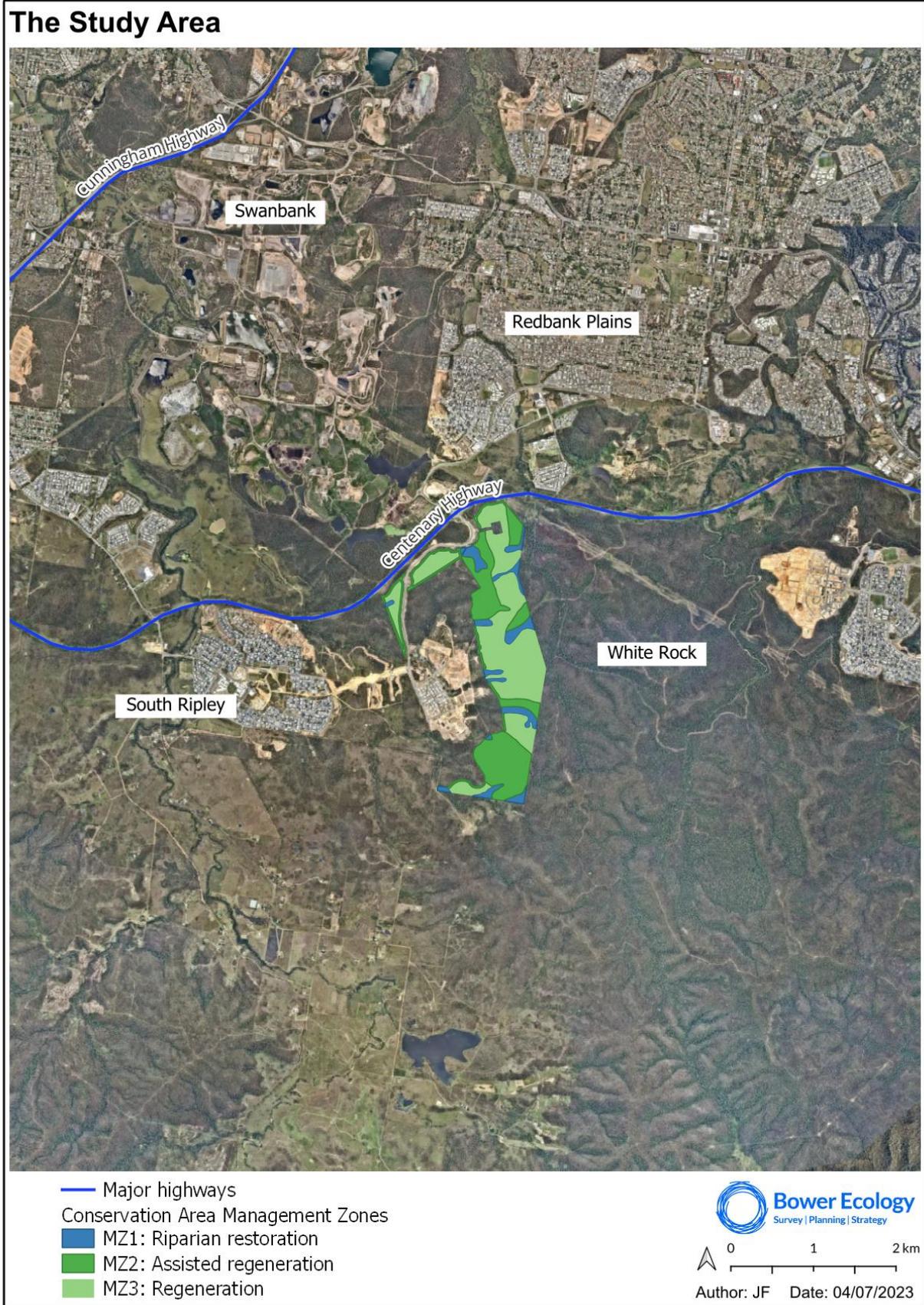


Figure 1: Local context

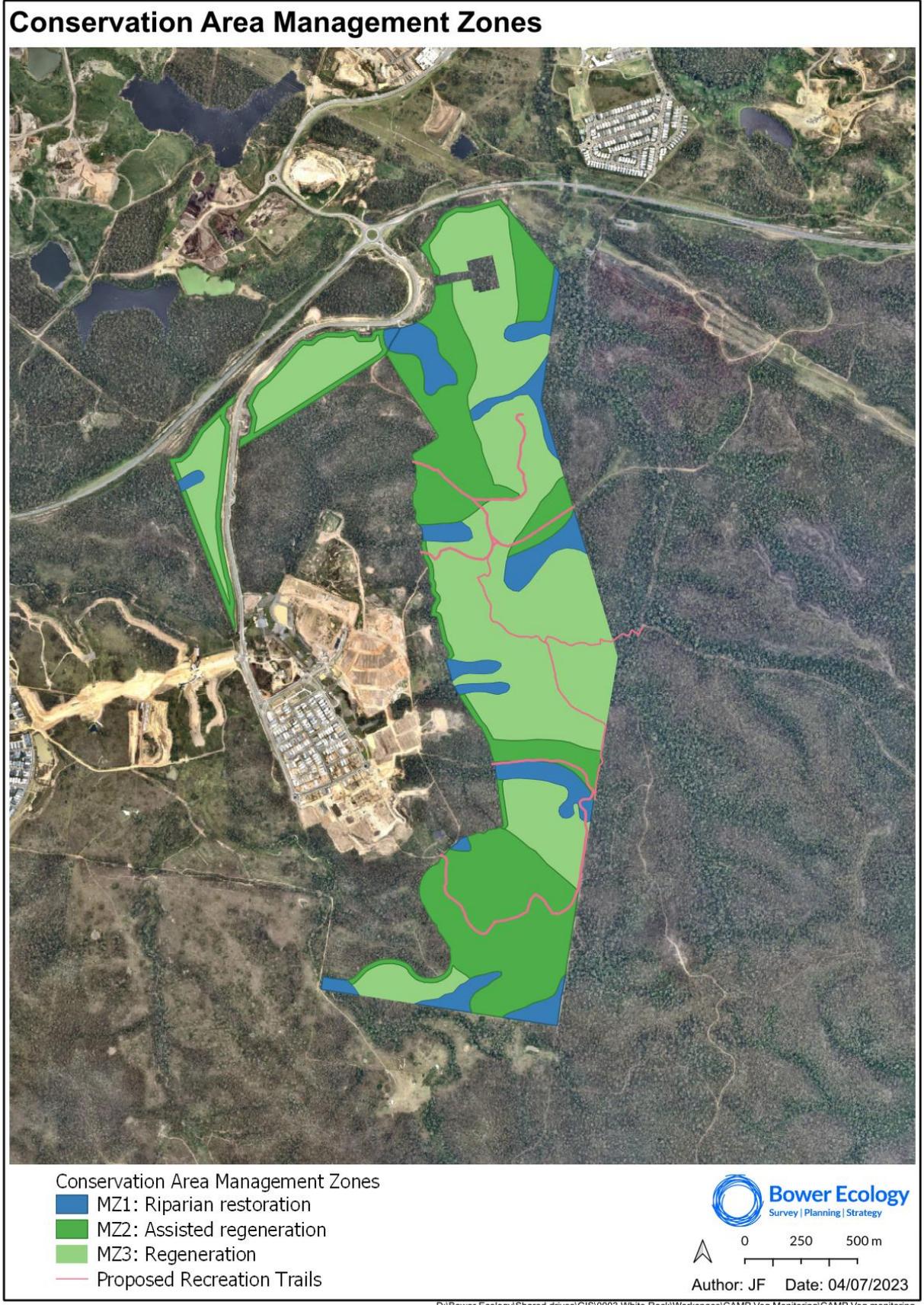


Figure 2: White Rock conservation area management zones

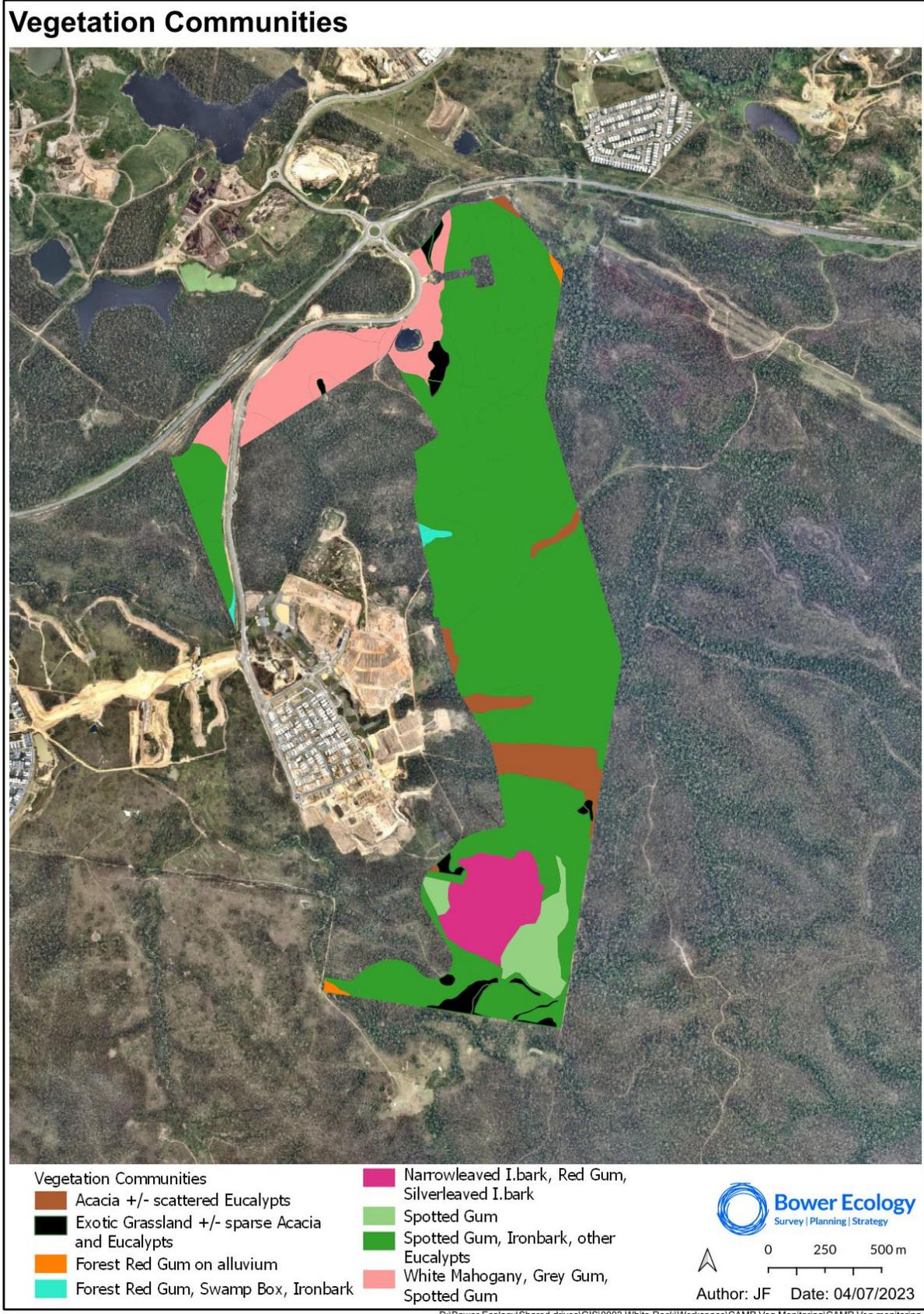


Figure 3: Vegetation communities within the CAMP area

2 Methodology

2.1. Ecological Monitoring Methodology

Field surveys were conducted as per the requirements of the CAMP (ELA 2020), as detailed in the 2021 baseline report (ELA 2021). Two suitably qualified ecologists completed the monitoring 4/6/2025, 5/6/2025 and 10/6/2025. Field surveys undertaken were BioCondition assessments, rapid Lantana assessments, and the monitoring of 12 established photo monitoring points (Figure 4). Methods are detailed below.

Baseline monitoring sites for both BioCondition assessments and photo monitoring were unable to be permanently marked with star pickets due to the potential existence of unexploded ordnances (UXOs). As a result, there were inconsistencies in the location of these sites during the early years of monitoring. To remedy this, prior to the 2024 monitoring event, permanent ground pegs (star pickets) were installed at BioCondition and photo monitoring locations with the assistance of OPEC Systems staff utilising a ground penetrating radar to identify potential UXOs and therefore safe locations to install clearly labelled ground pegs. 2024 and 2025 monitoring was undertaken (and all future monitoring will be conducted) at these pegged locations. This strategy will provide more consistent data and allow more meaningful comparisons between monitoring events. In effect the 2024 BioCondition results and photos will now function as a new de facto baseline with which all future monitoring results will be compared (alongside the original survey results).

2.1.1. BioCondition Assessments

Six established BioCondition sites (Figure 5) were assessed in accordance with the BioCondition Manual (Eyre *et al.*, 2015). At each site, assessment of the following site-based attributes was undertaken within a 100 m x 50 m (0.5 ha) nested sampling plot:

- Recruitment of woody perennial shrubs
- Native species richness (tree, shrub, forb and grass)
- Tree canopy height
- Tree canopy cover
- Shrub canopy cover
- Native perennial grass cover
- Organic litter cover
- Number of large trees
- Coarse woody debris abundance
- Non-native plant cover

At each BioCondition site, photographs were taken from the start and end points of the 100 m transect facing towards the centre.

2.1.2. Photo Monitoring

Photographs were taken at 12 photo monitoring sites (four sites per MZ) (Figure 6). From the marked centre point, four photographs were taken – each at right angles from one another, with one photograph taken in each of the cardinal directions: north, south, east and west. A 20 m tape and a compass were used to determine a straight line between opposite compass points, and a GPS location was recorded for each photograph.

2.1.3. Rapid Assessment of Lantana Infestations

A rapid Lantana assessment (RLA) was conducted at 20 established sites (Figure 7). At each site, a 20 m by 10 m survey plot was delineated. Percentage cover (projective foliage cover) of *L. camara* and *L. montevidensis* was estimated within each survey plot. For increased accuracy and repeatability, cover

was estimated at 2 m intervals along the 20 m length of each survey plot; summed estimates produced a cover estimate for the entire plot. A photograph was taken from the start of each survey plot looking toward the centre, to provide a visual indication of changes to Lantana cover over time.

2.2. Data Analysis

Site and landscape attribute data were analysed as per the BioCondition Assessment Manual Version 2.2 (Eyre *et. al* 2015).

2.2.1. Site-based Attributes

Data for each site-based attribute data was scored relative to the Queensland Herbarium Benchmarks. The BioCondition score for each site was calculated by dividing the sum of the site-based attribute scores by the maximum possible score for that site's specific ecosystem type.

2.2.2. Landscape-scale Attributes

The influence of the surrounding landscape on the vegetation quality within the Project Area was quantified via assessment of the following attributes:

- Patch size
- Context
- Connectivity

As per the BioCondition Assessment Manual (Eyre *et al.*, 2015), a score was determined for each attribute, and an overall landscape-attribute numerical score out of 20 was generated for each BioCondition assessment site.

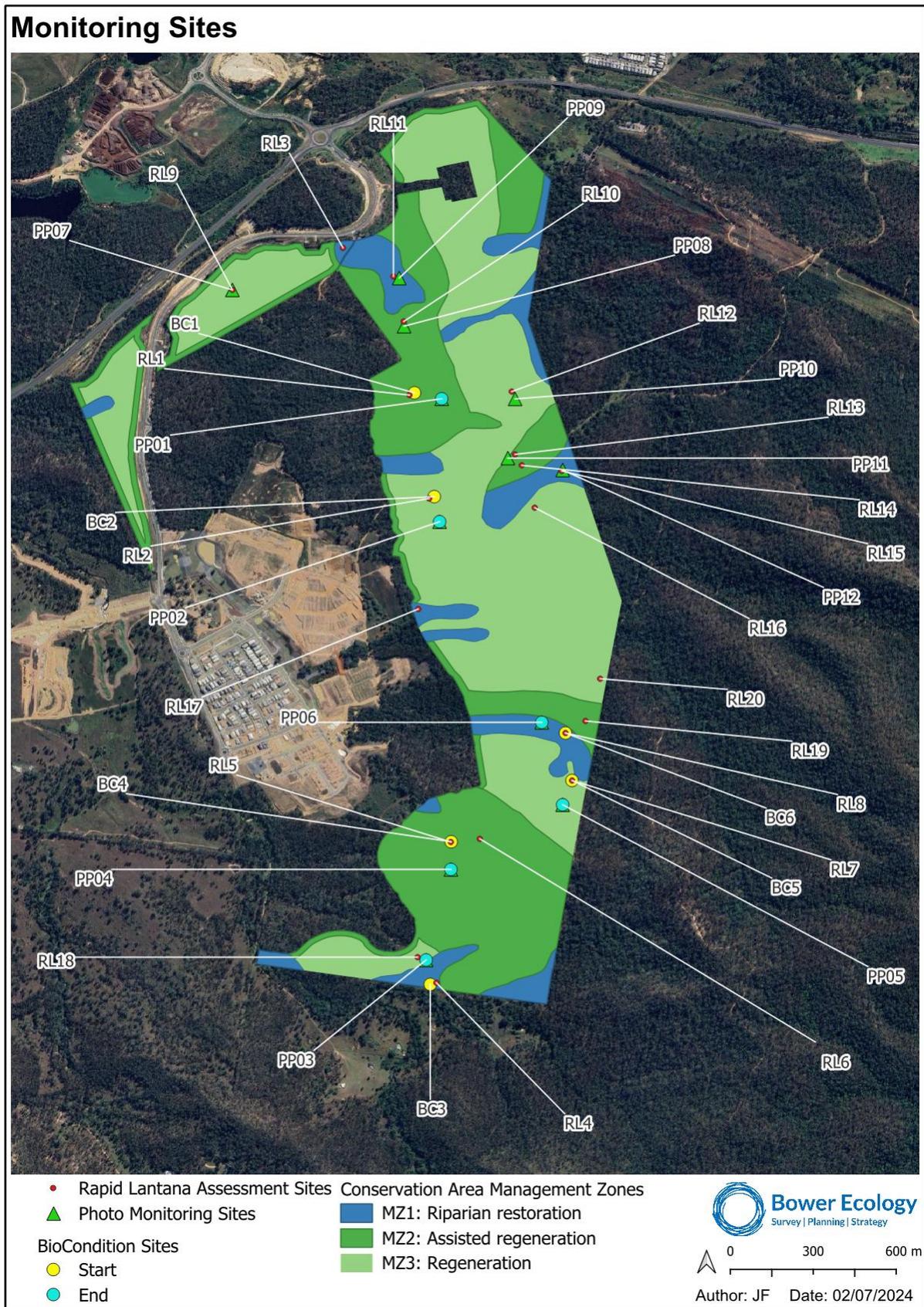


Figure 4: White Rock vegetation monitoring sites

3 Results

3.1. Survey timing and conditions

This year represents the fifth vegetation monitoring event on this site. All BioCondition, weed and photopoint monitoring activities were completed on 4, 5 and 10 of June 2025.

Weather conditions for the six months preceding the 2025 monitoring event are presented in Table 3. Climate data was obtained from recordings taken at the Greenbank (Defence) weather station, approximately 14 km east of the development site (BOM 2025). Total rainfall over the three months leading up to the 2025 surveys (March – May; Table 2) was the highest recorded over the same months since monitoring commenced, and more than three times higher than over the same months in the previous two years (2023 and 2024). This was largely a result of ex-Tropical Cyclone Alfred that brought high rainfall to Southeast Queensland in March 2025. This is likely to have affected vegetation growth, and therefore survey results.

Table 2: March to May rainfall (mm) for 2019 to 2025 (BOM 2025)

Date	2019	2020	2021	2022	2023	2024	2025
March	131.6	82.2	248.8	171	79.6	102	500
April	75.6	3	88.8	45	49.6	97.6	125.6
May	22.8	6	121.8	327.4	85	30.2	55.6
Total 3-monthly Rainfall (mm)	230	91.2	459.4	543.4	214.2	229.8	681.2

Table 3: Weather conditions for the six months preceding the June 2025 monitoring event (BOM 2025)

Date	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025
Mean Minimum Temperature (°C)	20.4	19.1	19	19.9	16.2	13.2
Mean Maximum Temperature (°C)	30.8	30.9	31.1	28.7	27.1	24.6
Total Rainfall (mm)	204.6	83	21.6	500	125.6	55.6

3.2. BioCondition assessment results

As per the requirements of the CAMP, six permanent BioCondition assessment sites were established in representative sites of vegetation communities and MZs (Figure 5 and Section 2.1). Two sites were established in each of the MZs (MZ1, MZ2, and MZ3) and occurred in two regional ecosystems in remnant condition and one non-remnant area. Assessment sites are detailed in Table 4 and Table 7.

3.2.1. 2025 BioCondition Assessment Results

In 2025, the average BioCondition class for MZ1 sites was 3, the average class for MZ2 sites was 2.5, and the average class for MZ3 was 1.5.

BioCondition results for each site are stated in Table 4, with further detail in Appendix B (Appendix C includes photographs of BioCondition monitoring site. Most sites (1, 5 and 6) scored a class of 2, representing vegetation approaching functional biodiversity condition. Site 2 scored a class of 1, the highest score recorded at any site since monitoring commenced, representing vegetation in a

functional biodiversity condition. Site 4 received a score of class 3, representing vegetation approaching dysfunctional biodiversity condition. Site 3 is in non-remnant condition, and consequently scored the lowest BioCondition class of 4.

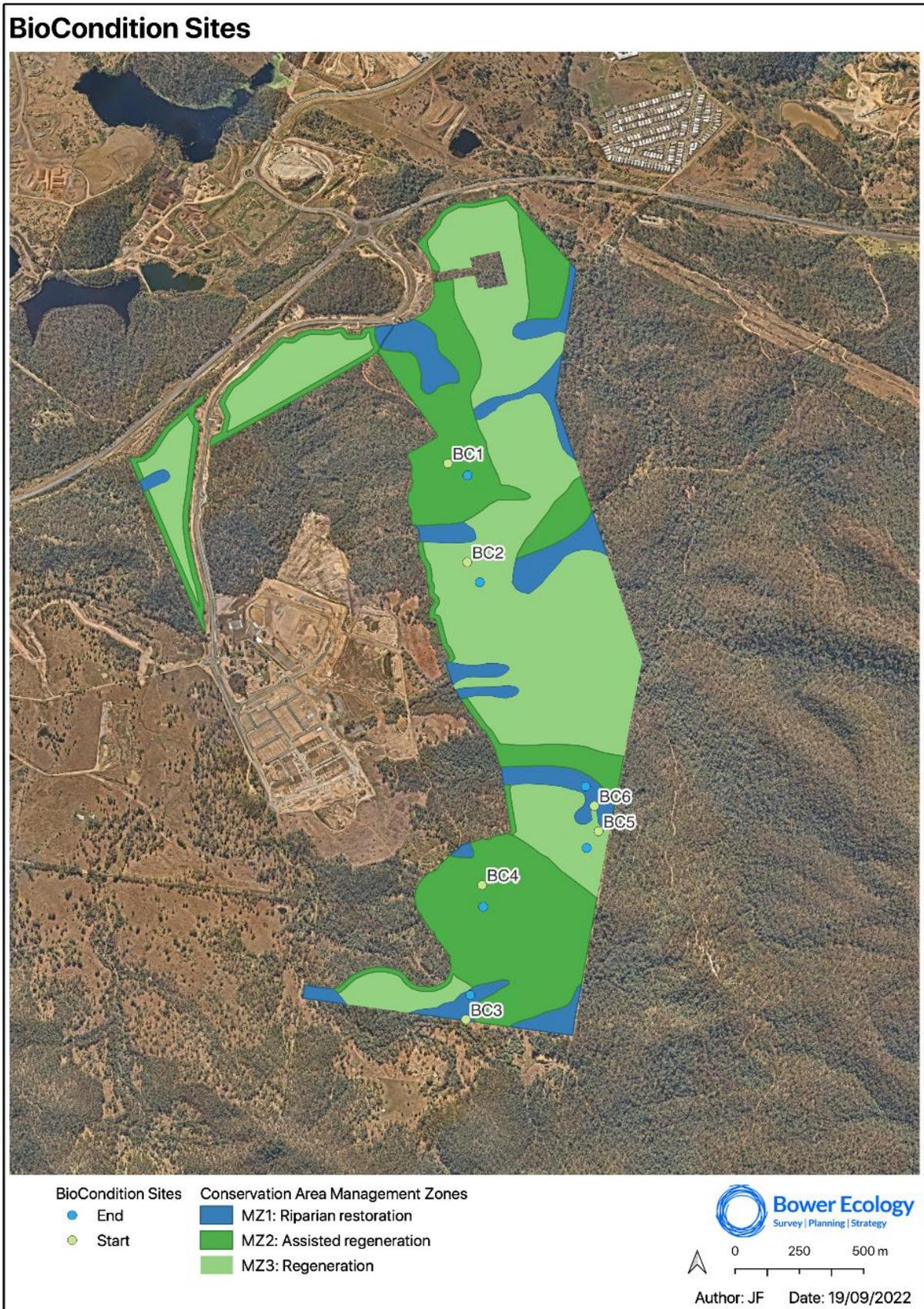


Figure 5: White Rock BioCondition assessment sites

Table 4: Summary of BioCondition results for 2021 to 2025

Site ID	MZ	RE	Condition	Benchmark used	Overall BioCondition score 2021	Overall BioCondition score 2022	Overall BioCondition score 2023	Overall BioCondition score 2024	Overall BioCondition Score 2025	BioCondition class 2021	BioCondition class 2022	BioCondition class 2023	BioCondition class 2024	BioCondition class 2025
1	2	12.9-10.2	Remnant	12.9-10.2	0.61	0.61	0.63	0.59	0.65	2	2	2	3	2
2	3	12.9-10.2	Remnant	12.9-10.2	0.76	0.76	0.78	0.79	0.91	2	2	2	2	1
3	1	12.9-10.7 (pre-clear)	Non-remnant	12.9-10.7	0.33	0.33	0.40	0.26	0.26	4	4	3	4	4
4	2	12.8.17	Remnant	12.8.17	0.59	0.65	0.60	0.48	0.59	3	2	2	3	3
5	3	12.9-10.2	Remnant	12.9-10.2	0.67	0.67	0.69	0.54	0.80	2	2	2	3	2
6	1	12.9-10.2	Remnant	12.9-10.2	0.61	0.54	0.51	0.62	0.76	2	3	3	2	2

3.3. Photo Monitoring

A total of 12 photo monitoring sites were established across the three different MZ, four in each zone in the Conservation Area (Figure 6), six of which are co-located with the six BioCondition survey sites (Figure 5). Photo monitoring sites are designed to deliver comparative results over the course of the CAMP program. Due to the slight variations in location between the 2021 and 2022 monitoring point photographs, only general conclusions can be drawn when comparing results from these years. Photos taken during 2023, 2024 and 2025 monitoring will provide more meaningful insights when future monitoring photos are compared.

Digital photos taken at each site during 2023, 2024 and 2025 monitoring are available in Appendix D. Prior site photos are also included for reference where available. Most sites show improvement in conditions in comparison the previous monitoring event. Some, however, show increased growth of Lantana (sites 4, 6, 8, and 11) based on the photos alone.

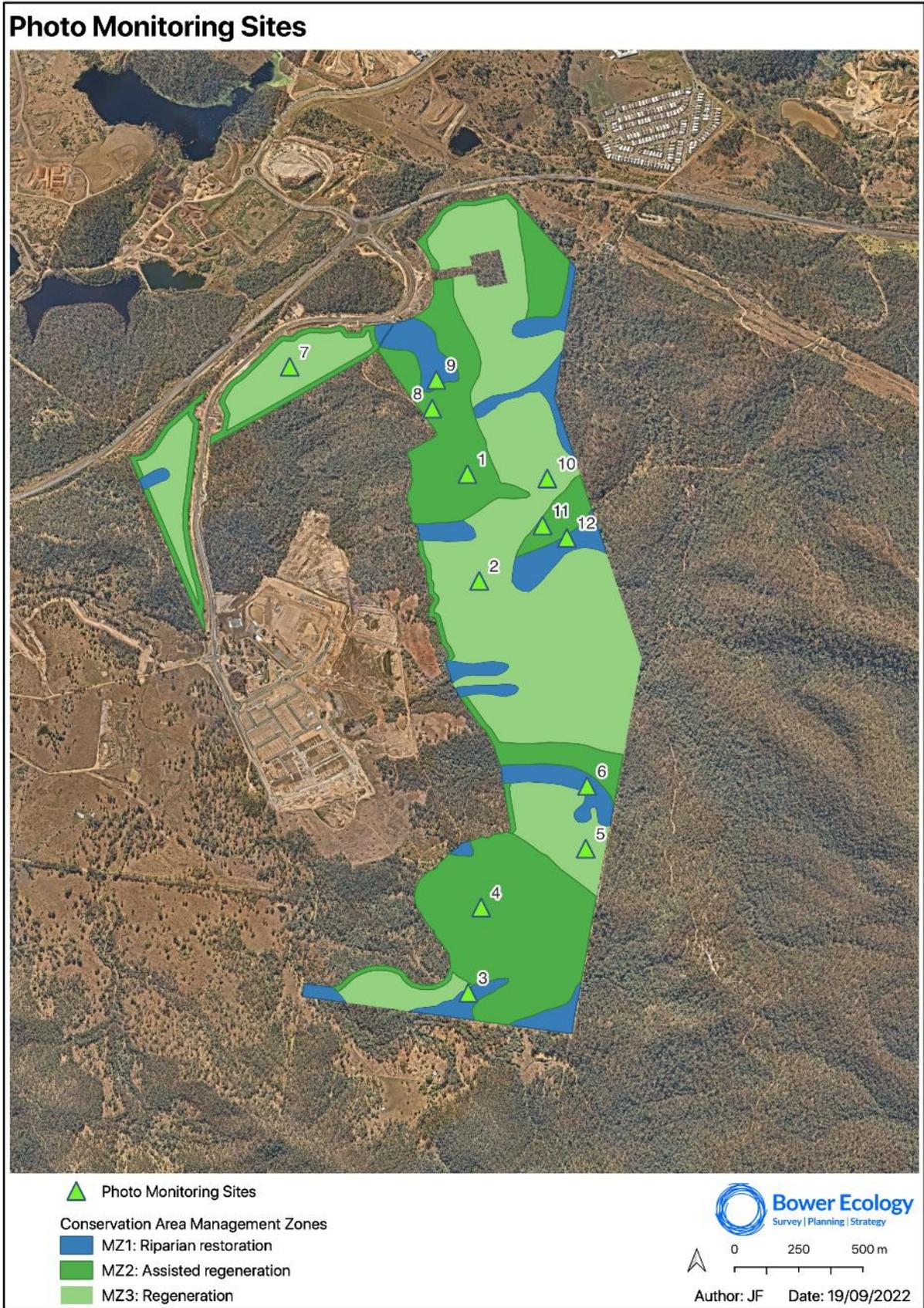


Figure 6: White Rock photo monitoring sites

3.4. Rapid Assessments of Lantana Infestations

A total of 20 rapid Lantana assessment sites were monitored across the Project Area: six sites in MZ1, seven sites in MZ2, and seven sites in MZ3 (Figure 7). Photographs of each assessment site are included in Appendix E.

L. camara was recorded at 18 out of 20 sites; this is the same number of sites at which this species was recorded in the previous monitoring event, and two sites less than the number at which this species was recorded during baseline surveys.

L. montevidensis was recorded at 10 sites; this is two sites less than the number at which this species was recorded in the previous monitoring event, but one more site than the number at which it was recorded during baseline surveys.

The percentage cover of both Lantana species, averaged across all sites, was significantly lower than the baseline, and lower than that recorded during the previous monitoring event (Table 5). Photographs in Appendix E illustrate the declining Lantana cover indicated by the survey results.

Both Lantana species demonstrate a decrease in percentage cover (percent foliage cover) in comparison to the baseline. For Bush Lantana, spatial distribution is slightly reduced in comparison to the baseline. Percentage cover of Bush Lantana averaged across all sites is the lowest yet recorded, and is 89 % less than that recorded during the 2021 baseline survey. That is, 18 monitoring sites show a reduction in cover of this species in comparison to baseline results.

Spatial distribution of *L. montevidensis* is slightly reduced in comparison to the previous monitoring event; however, it shows an increase in comparison to the baseline and 2022 results. Percentage cover of *L. montevidensis* shows an increasing trend over time from 2022 to 2024 monitoring; 2025 results show a reduction in coverage below 2023 levels. Most sites at which *L. montevidensis* was recorded show low coverage. Three sites (RL7, RL12 and RL15) were found to have significantly higher coverage of *L. montevidensis* in comparison to the baseline; all three of these sites, however, demonstrate reduced coverage of this species in comparison to the previous monitoring event.

Figure 9 and Figure 10 illustrate approximate areas in which weed management was undertaken during this period. Planting of threatened species *M. irbyana* is still incomplete across the Conservation Area; this is scheduled to be completed by the end of February 2026. No thinning of native trees has been undertaken, as it has not yet been deemed necessary.

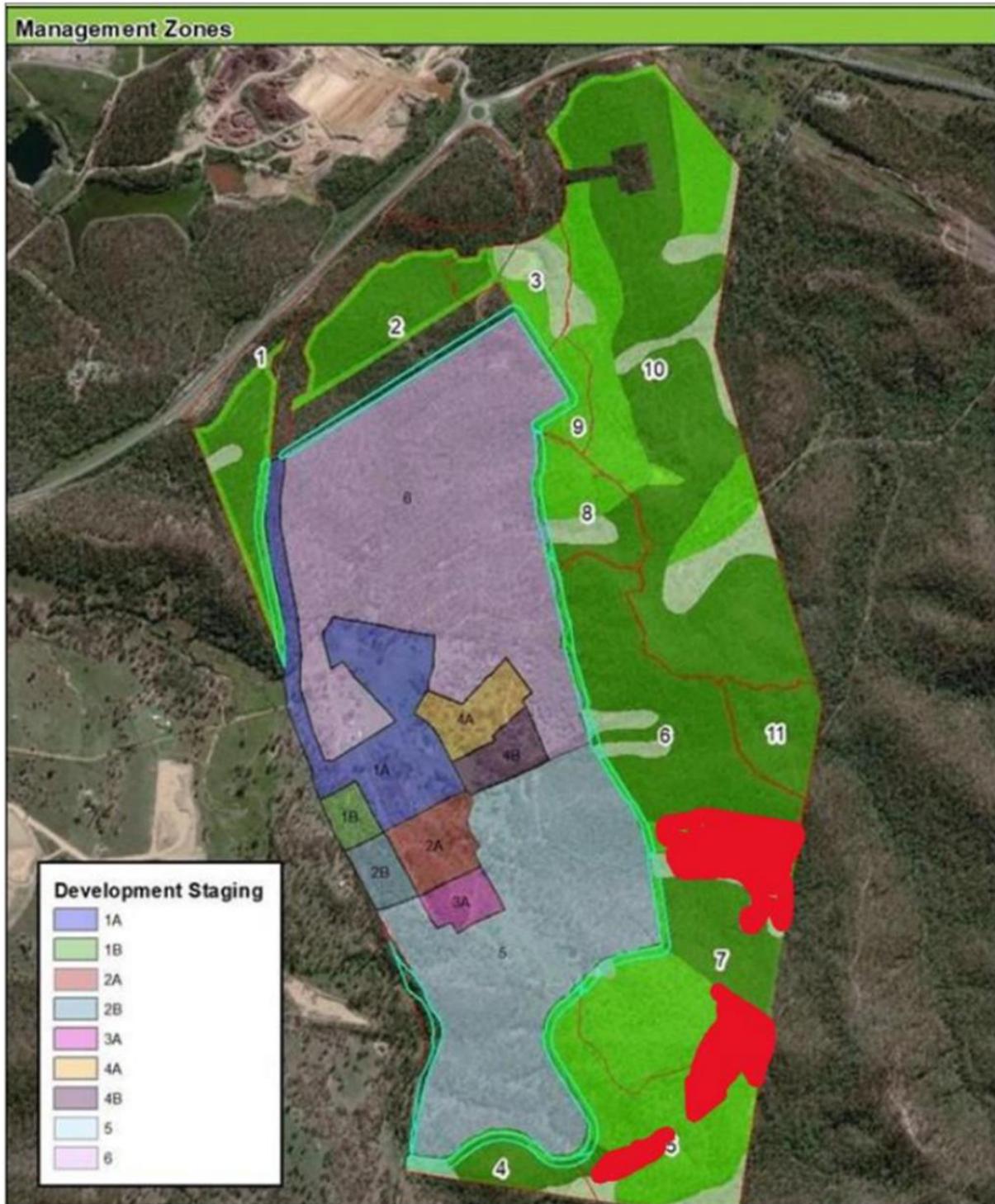
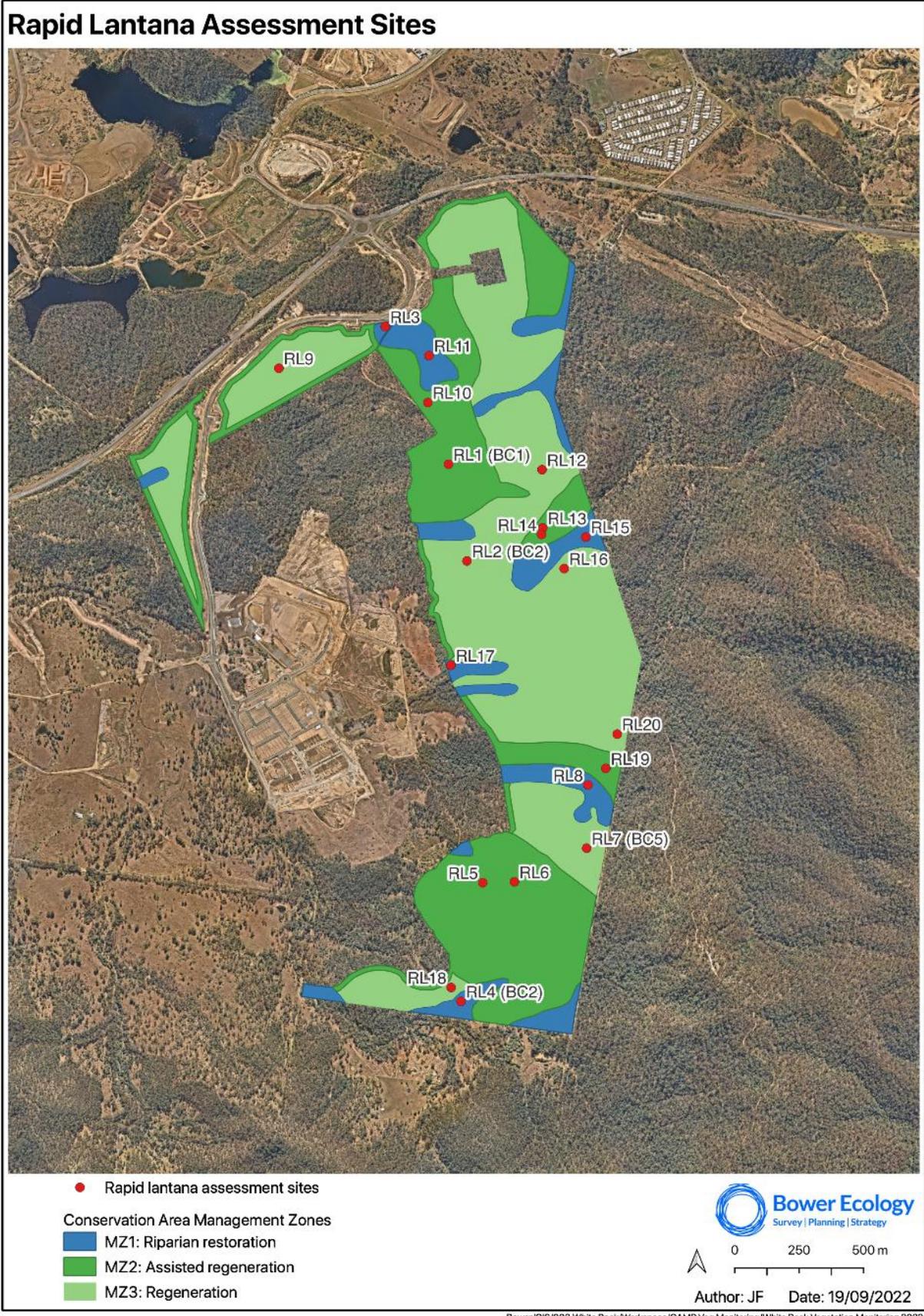


Figure 8 The rehabilitation contractor, Evolve Environmental Solutions, undertook approximately 10.6 ha of primary weed management and 68.15 ha of secondary weed management in the 12 months preceding the June 2025 monitoring event.

Table 5: Lantana Rapid Assessment results

Site ID	MZ	% cover <i>L. camara</i> 2021	% cover <i>L. camara</i> 2022	% cover <i>L. camara</i> 2023	% cover <i>L. camara</i> 2024	% cover <i>L. camara</i> 2025	% cover <i>L. montevidensis</i> 2021	% cover <i>L. montevidensis</i> 2022	% cover <i>L. montevidensis</i> 2023	% cover <i>L. montevidensis</i> 2024	% cover <i>L. montevidensis</i> 2025
RL1	2	35	26	1	3.25	0.4	0	0	0	0.4	0.075
RL2	3	10	0	1	0	0.025	10	0	0	0.25	0
RL3	1	80	5	3	0.75	0.15	0	0	0	0	0
RL4	1	10	0	10	22	20.4	0	0	0.1	0	0
RL5	2	35	0	6.5	12	0	50	0	0.25	0	0.05
RL6	2	30	5	4	4	0.55	30	0	1	0.7	0
RL7	3	5	24	4.5	6.5	6.2	0	0	8	16.25	4.2
RL8	1	80	0	4	9.8	6.5	0	0	0	0	0
RL9	3	35	0	1	2.7	0.475	0	0	0.1	1	0.1
RL10	2	50	6	1.5	6	9.275	0	0	1	7	0
RL11	1	30	15	2	7.25	5.4	5	0	0	0	0
RL12	3	35	0	0.25	0	0	35	20	35	75	54
RL13	2	40	20	43	55	30.2	5	15	5	5	3.9
RL14	2	80	11	9	20	4.495	15	11	0.5	1.4	0.085
RL15	1	80	0	4	11	1.475	0	0	12	6.45	3.05
RL16	3	1	0	18	16	1.68	55	0	3.5	1.25	0.69
RL17	1	55	100	40	69	0.125	40	0	0	0	0
RL18	3	70	0	2.5	2	1.95	0	0	0	0	0.25
RL19	2	65	20	6	9	1.4	0	3	1	1.6	0
RL20	3	10	0	2	3	2.1	0	0	0.1	0	0
Site Mean		41.8	11.6	8.16	12.96	4.64	12.3	2.45	3.38	5.97	3.32



Bower/GIS/003 White Rock/Workspace/CAMP Veg Monitoring/White Rock Vegetation Monitoring 2022

Figure 7: White Rock Rapid Lantana Assessment sites

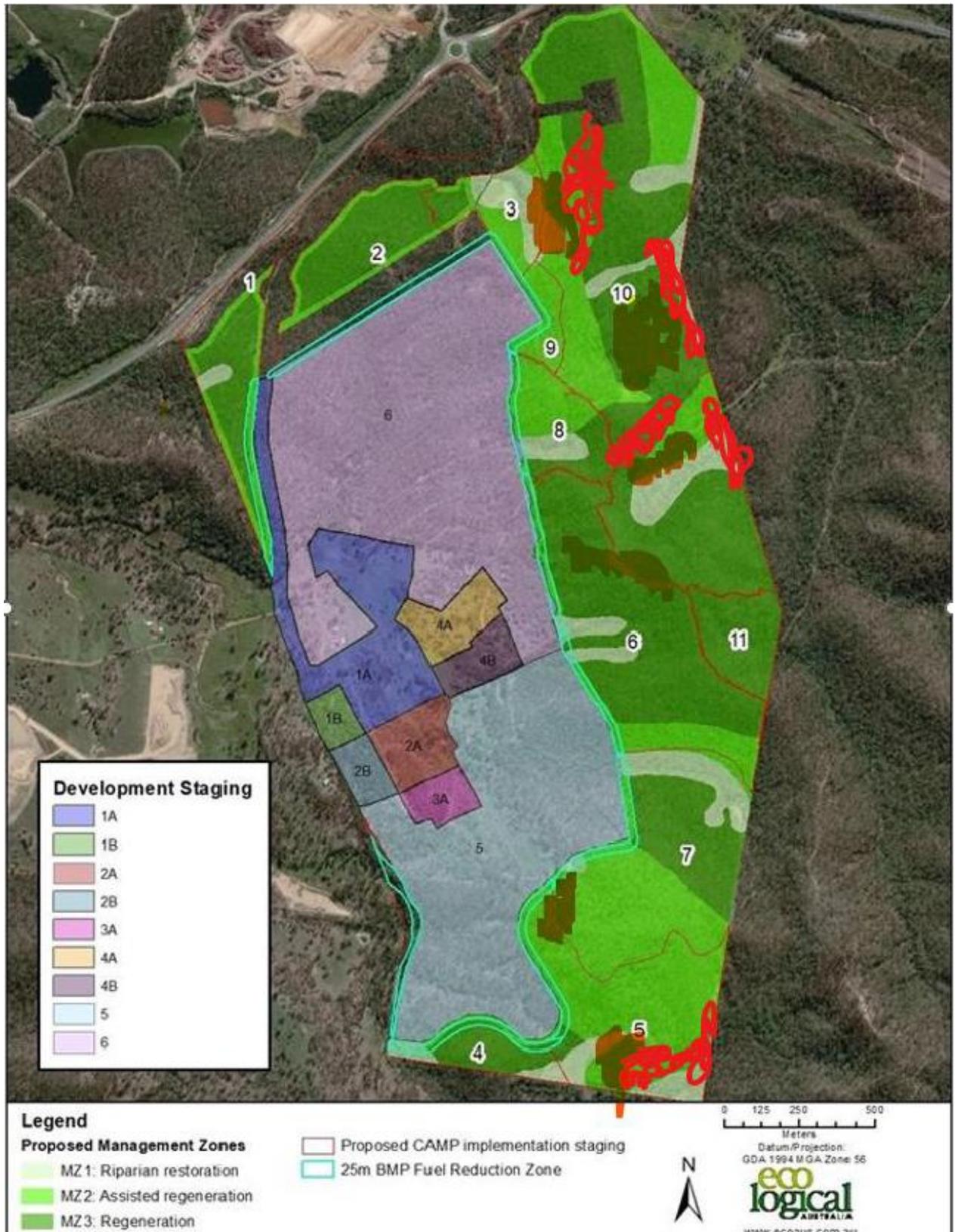


Figure 8: Weed treatment works undertaken by Evolve Environmental Solutions in July to September 2024 (from Evolve Environmental Solutions; sketched mark-up indicates targeted areas).

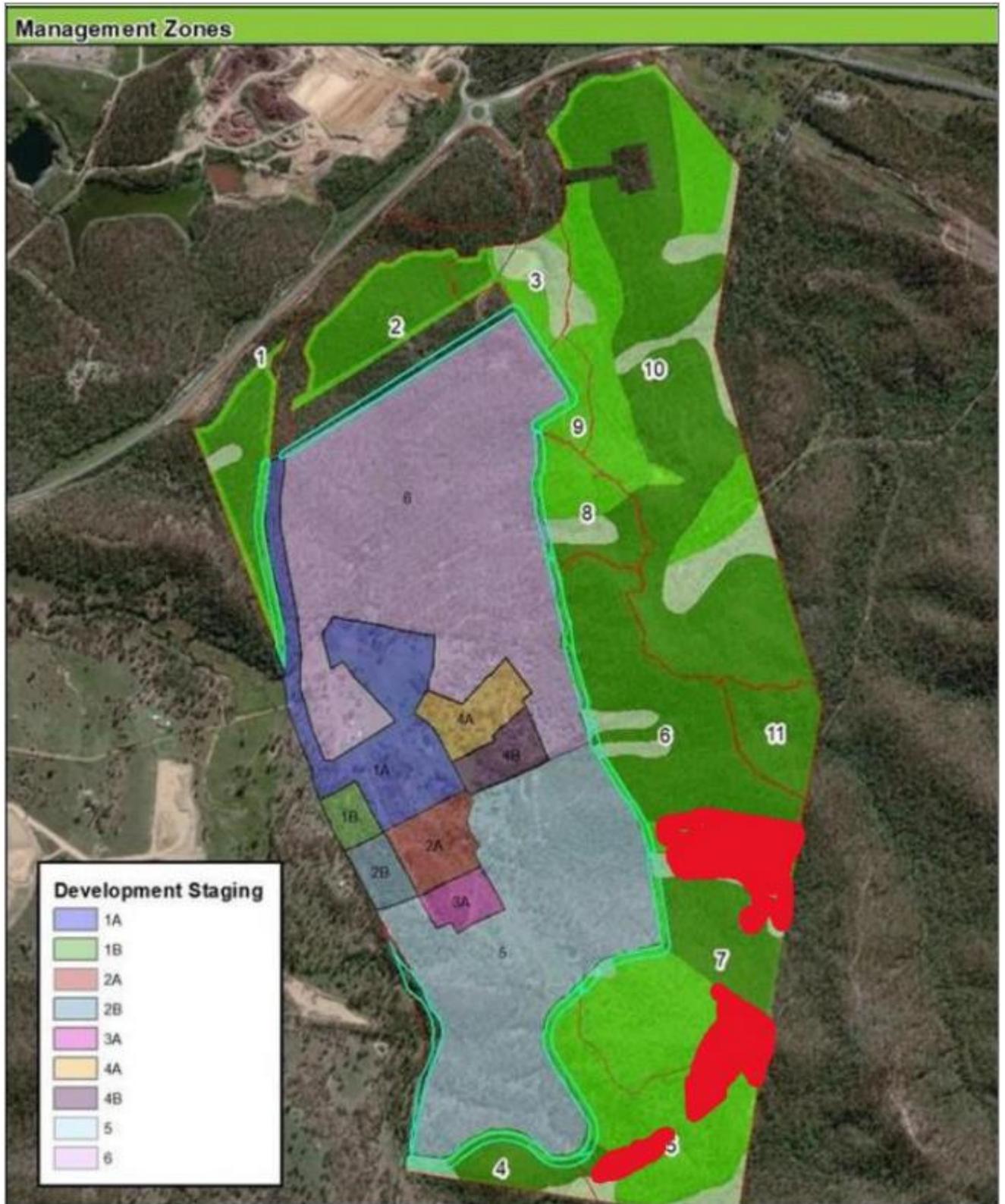


Figure 9: Weed treatment works undertaken by Evolve Environmental Solutions in January to March 2025 (from Evolve Environmental Solutions; sketched mark-up indicates targeted areas)

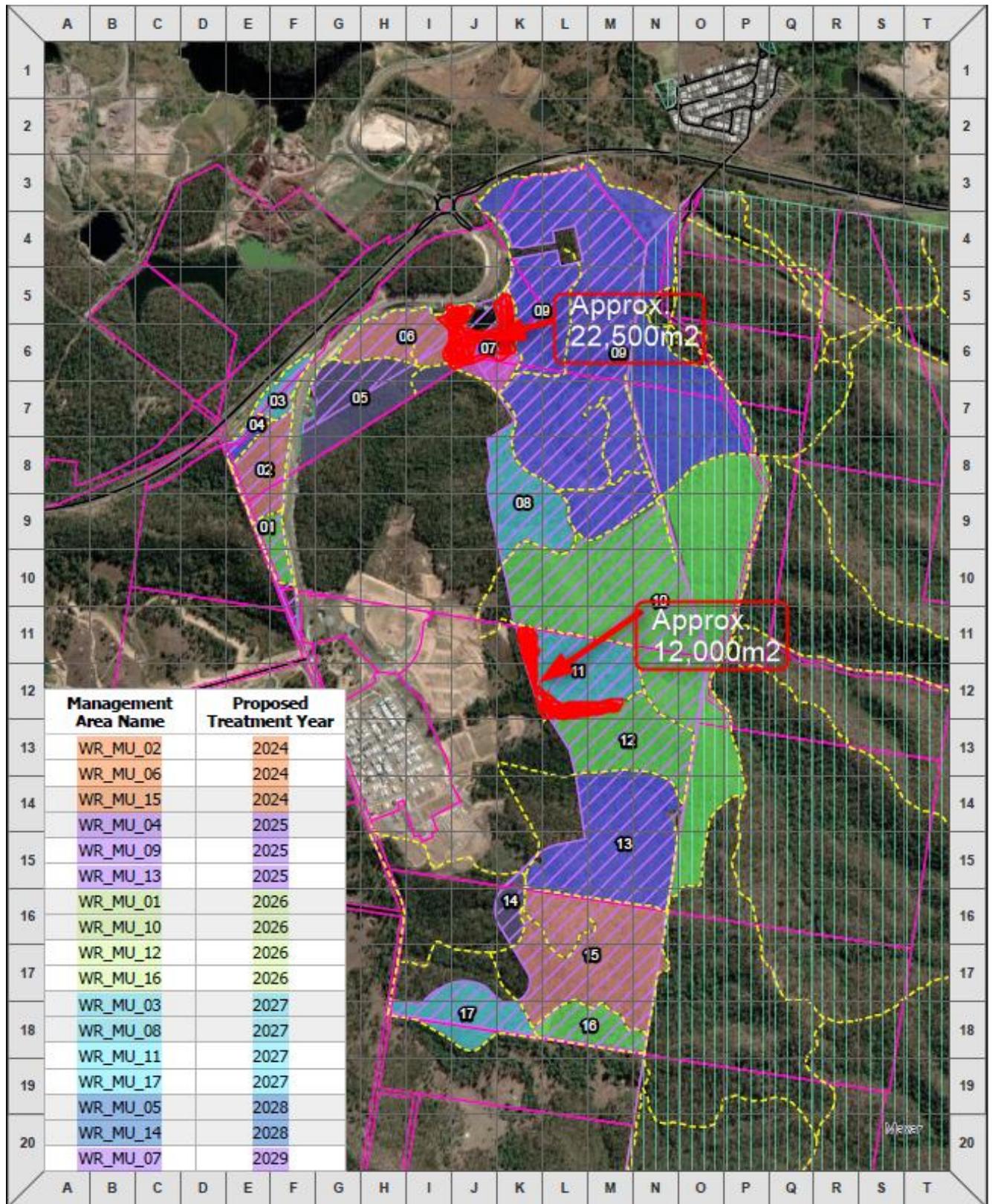


Figure 10: Weed treatment works undertaken by Evolve Environmental Solutions in April to June 2025 (from Evolve Environmental Solutions; red mark-up indicates areas treated).

4 Discussion

Overall, *Lantana cover* (the key trait expected to respond to management) shows a decreasing trend since baseline surveys were conducted in 2021, while fluctuations in *spatial distribution* of *Lantana* over time are more variable. Since weed management works commenced, the coverage of both species of *Lantana* has declined significantly.

Spatial distribution of *L. camara* has reduced slightly in comparison with the baseline (baseline surveys recorded this species at all 20 assessment sites, while 2025 monitoring recorded individuals at 18 out of the 20 sites). Spatial distribution of *L. montevidensis* has increased in comparison with the baseline but decreased since 2024 monitoring: this species was recorded at 9 sites in baseline surveys, 12 sites in 2024 monitoring, and 10 sites in 2025. The reduction in *Lantana cover* can be attributed to weed management works, evidence of which was apparent on site; however, the variable spatial distribution of *L. montevidensis* and the wide distribution of *L. camara* indicate a need for continued efforts to control these weed species.

During previous monitoring events, the exact location of the start and finish positions of some sites were unable to be located because permanent markers had not yet been installed (due to unexploded ordnances preventing star picket installation). Prior to the commencement of the 2024 surveys, permanent pegs were installed to clearly mark the location of each BioCondition site. In all cases, the BioCondition site pegs were installed within 30 m of the original plot location. From 2024 onwards, any variation in results can be made attributable to changes in vegetation condition with considerably more confidence. Hence, comparisons against BioCondition results from 2024 monitoring are likely to be more informative than comparisons against previous years. As such 2025 and other future results will be compared with not only those of the initial survey, but also those of 2024 monitoring, which will act as a secondary de facto baseline.

The average BioCondition class for management zone (MZ) 1 was 3, the average class for MZ2 was 2.5, and the average class for MZ3 was 1.5.

BioCondition Site 2, in MZ3, recorded the highest score (91) and a class of 1, representing vegetation in a functional biodiversity condition. This site has consistently scored the highest BioCondition class of the six sites since monitoring commenced. The 2025 result for Site 2 is significantly higher than that of previous monitoring events, an outcome attributable to increases in tree, shrub and forb species richness, as well as elevated measures of litter and coarse woody debris. The increase in litter and coarse woody debris recorded in 2025 surveys is likely a result of ex-Tropical Cyclone Alfred, that brought high rainfall and strong winds to Southeast Queensland in March 2025.

The lowest score (26) and class (4) was recorded at BioCondition Site 3, in MZ1; this site is in non-remnant condition, hence its poor condition, and has consistently scored the lowest out of the six sites since monitoring commenced. The low BioCondition score and class at Site 3 are a result of low shrub and forb species richness, low canopy cover, low cover of both litter and coarse woody debris, high weed cover, and a lack of large trees.

BioCondition Site 5 is notable, as its condition has improved dramatically in comparison to all previous monitoring events. This site has a score of 54 and a class of 3 in 2024, while 2025 results show a score of 80 and class of 2. This improvement in condition can be attributed to increased recruitment, increased tree and shrub canopy cover, increased species richness of trees, shrubs, grasses and forbs, decreased weed cover, and increased cover of both litter and coarse woody debris (the latter two increases are likely attributable to the occurrence of ex-Tropical Cyclone Alfred in March 2025). Controlled burns as part of the CAMP Bushfire Management Plan (EcoLogical

Australia, 2020) may have also played a role in the improvement of condition at this site. Low-moderate severity burns were conducted in an area encompassing BioCondition Sites 4 and 5 on 26 June 2024 (Appendix F). It is expected that these burns would have both reduced lantana cover, and improved native species germination and therefore species richness.

Some ecosystem traits have short response times and are expected to show changes in response to management within a short period of time. This includes native forb and grass species richness, and perennial grass cover; these traits are also likely to respond rapidly to higher-than-average rainfall, as occurred during months preceding the 2025 monitoring event. Other attributes take longer to mature. Some ecosystem traits are likely to respond rapidly to growing seasons with higher-than-average rainfall, such as the months preceding the 2025 monitoring event. Trends in traits such as canopy cover, tree species richness and the number of large trees will take longer to emerge than the 12-month period between 2025 and 2026 monitoring; it is expected that trends in these attributes will begin to become apparent in future years.

Recommendations for management for the next annual cycle emerging from this report are:

- Ensure continued maintenance weed management to control the cover of Lantana species. Once Lantana (particularly *L. camara*) is removed, it can open new niches for other invasive species to proliferate. The condition of control sites will be continued to be monitored and, if other weeds of concern emerge, they will be added to the weed monitoring schedule.
- From 2024, management began to focus on ecological burns as an additional method of restoration, with works planned for areas where *L. montevidensis* is worst. It is acknowledged, however, that several factors are considered when determining the location of burns.

5 References

Bureau of Meteorology (BoM) 2025. Climate data online: Greenbank (defence). Available: Climate Data Online - Map search (bom.gov.au) – Station number 140009

Eyre, T.J., Kelly, A.L, Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. 2015. BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2. Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane

Department of Environment and Heritage Protection [DEHP] 2014. Flinders Karawatha Corridor Management Strategy 2014-2019. Queensland Government. Accessed online at: https://environment.des.qld.gov.au/data/assets/pdf_file/0022/90643/flinders-karawatha-management-strategy.pdf

Eco Logical Australia [ELA] 2017. White Rock Ecological Assessment. Prepared for Intrapac Property Pty Ltd

Eco Logical Australia [ELA] 2020. White Rock Conservation Area Management Plan. Prepared for Intrapac Property Pty Ltd.

Eco Logical Australia 2021. White Rock Vegetation Monitoring Report - Baseline. Prepared for Intrapac Property Pty Ltd

Appendix A: CAMP Performance Criteria

The performance criteria required for the site have been identified in Table 6 and are consistent with the EPBC Act approval. Performance criteria specifically related to the current monitoring event are highlighted orange in Table 6 below. Performance criteria are considered as interim targets, which will guide works towards the completion criteria stated in the CAMP. If monitoring indicates that the management actions are not resulting in achievement of the performance criteria, the program may require revision in consultation with ICC and all other relevant authorities.

Table 6: CAMP performance criteria

	Establishment			Maintenance
	Preliminary	Management		
	By end of year 3*	Between end of year 3 and end of year 10*	Year 11*	Years 12-21*
Construction-related management actions				
Translocation of habitat / logs	Translocation undertaken, minimal damage to CA vegetation.	N/A		
Fencing / signage / (and maintenance)	Infrastructure installed.	No more than 5% of fencing compromised at any time		
Sediment and erosion control (and maintenance)	Sediment / erosion works installed	Sediment and erosion control devices checked and repaired annually in Quarter 1		
Waste	Initial waste removal undertaken, ongoing waste removed quarterly / as required	Waste removed Quarterly and as required		
Bushland management actions				
Fire management	Bush fire management plan (BFMP) completed. Fire management works undertaken as specified in the BFMP.	Fire management works undertaken as specified in the BFMP.		
Significant flora management	Undertaken as per specifications in Section 7.3. After works are complete, monitoring of planted / seeded individuals must be undertaken			N/A

Pest fauna management	Two survey events completed to determine baseline of dogs/cats/foxes within the Conservation Management Area and reference sites within the adjacent White Rock Conservation Estate Area. Development of a pest management plan that specifies how feral dogs, cats and foxes will be reduced in the Conservation Management Area. Development of a survey methodology that is sufficient to demonstrate any reduction of feral dogs, cats and foxes in the Conservation Management Area, relative to the baseline and reference sites within the adjacent White Rock Conservation Estate Area.	Between end of year 3 and the end of year 6, no increase in pests against baseline, or in the event of evidence of an increase in pests in the general area as measured at reference sites within the White Rock Conservation Estate Area, then demonstrated reduction in pests relative to the reference sites, measured annually.	From the beginning of year 7 to end of approval, maintain a reduction in pests relative to baseline, measured annually, or in the event of evidence of an increase of pests in the general area, measured at reference sites within the White Rock Conservation Estate Area, then demonstrated reduction relative to these reference sites, measured annually.
Bushfire/recreation trails (and maintenance)	Fire access tracks established	At a minimum, bushfire management trails drivable at least one month prior to fire season as determined in BFMP. No more than 10% of designated multipurpose trails unwalkable at any time.	
Revegetation requirements assessed	Revegetation requirements assessed every year prior to planting season until Year 8		N/A
Revegetation works	N/A	Revegetation is undertaken to planting specifications and consistent with the Regional Ecosystem type. All revegetation to be completed by the end of Year 8 (at least 20% of works will be completed by the end of each year [years 4 to 8]). Minimum 90% survival rate of revegetation or equivalent stem density (i.e. through natural regen) at the end of each year and by the end of Year 11.	N/A
Weed control	Targeted primary treatment over approximately 10% of area.	Primary and secondary works undertaken in all areas by the end of Year 8 (at least 20% of	A minimum of three years of maintenance undertaken in all areas

	Targeted primary treatment within all mosaic burn areas (post burn), estimated to be 10% pending preparation of BFMP	works will be completed by the end of each year [years 4 to 8]). Targeted primary treatment within all mosaic burn areas (post burn).	<5% coverage of mature woody weeds in any zone <25% exotic groundcover in Management Zone 1 and Management Zone 2 <10% exotic groundcover in each zone in Management Zone 3 Targeted primary treatment within all mosaic burn areas (post burn).
Native tree management	Identification of tree thinning areas	All thinning activities undertaken as specified in Section 7.7 by the end of Year 8	All management zones and portions thereof have koala food trees present consistent with the associated Regional Ecosystem type.
Monitoring and reporting			
Monitoring and annual reporting	Monitoring points installed / baseline established prior to works	Annual and final monitoring undertaken as specified in Section 9 of the CAMP	
CAMP Review, aiming to minimise threatening processes to koalas and GHFF	N/A	CAMP reviewed and updated at Year 6, 11, 16 and 21	

* Year 1 means the period until 12 months from the date of the approval of the action

Year 2 means the period until 24 months from the date of the approval of the action

Year 3 means the period until 36 months from the date of the approval of the action

Year 4 means the period until 48 months from the date of the approval of the action

Year 5 means the period until 60 months from the date of the approval of the action

Year 6 means the period until 72 months from the date of the approval of the action

Year 7 means the period until 84 months from the date of the approval of the action

Year 8 means the period until 96 months from the date of the approval of the action

Year 9 means the period until 108 months from the date of the approval of the action

Year 10 means the period until 120 months from the date of the approval of the action

Year 11 means the period until 136 months from the date of the approval of the action

Year 12 means the period until 148 months from the date of the approval of the action

Year 16 means the period until 192 months from the date of the approval of the action

Year 21 means the period until 252 months from the date of the approval of the action

Appendix B: BioCondition Scores

Table 7: BioCondition analysis and scoring for Year 4 2025 monitoring

Management zone	2		3		1		2		3		1	
Site ID / RE	BC1 / RE12.9-10.2		BC2 / RE12.9-10.2		BC3 / RE12.9-10.7		BC4 / RE12.8.17		BC5 / RE12.9-10.2		BC6 / RE12.9-10.2	
Value Type	Field value	Score	Field value	Score	Field value	Score	Field value	Score	Field value	Score	Field value	Score
Field based attributes												
Recruitment	100	5	43	3	100	5	20	3	100	5	43	3
Native tree sp. richness	8	5	10	5	4	5	11	5	11	5	10	5
Native shrub sp. richness	7	5	11	5	0	0	4	2.5	8	5	5	2.5
Native grass sp. richness	6	2.5	5	2.5	6	2.5	5	2.5	7	5	2	2.5
Native forb sp. richness	4	2.5	6	2.5	3	0	5	0	13	5	11	2.5
Tree canopy height	18	-	19	-	18	-	20	-	19	-	19	-
Sub canopy height	-	-	-	-	-	-	-	-	-	-	-	-
Average canopy height score	-	5	-	5	-	5	-	5	-	5	-	5
Tree canopy cover	30.3	-	50.22	-	2	-	56	-	79.1	-	78	-
Sub canopy cover	-	-	-	-	-	-	-	-	-	-	-	-
Average canopy cover score	-	2	-	5	-	0	-	5	-	5	-	5
Shrub canopy cover	5.1	5	4.8	5	0	0	1.6	3	5.2	5	3	5
Native perennial grass cover	1.2	0	54	5	41.6	3	9.3	1	10	1	1.6	0
Organic litter cover	78.4	5	45.2	5	1.4	0	2.7	3	80	5	40.6	5
Large trees	10	5	100	15	0	0	20	10	10	3	40	15
Coarse woody debris	475	5	535	5	0	0	90	2	660	5	360	5
Weed cover	10.56	5	0	10	54.4	0	16.3	5	1.95	10	20.35	5
Total Field based attributes		52		73		21		47		64		61
GIS based attributes												
Fragmented - Patch size	10	10	10	10	5	5	10	10	10	10	10	10
Fragmented - Connectivity	5	5	5	5	4	4	5	5	5	5	5	5
Fragmented - Context	5	5	5	5	4	4	5	5	5	5	5	5
Total GIS attributes	20	20	20	20	13	13	20	20	20	20	20	20
Total BioCondition Score		65		91		26		59		80		76
Weighted Ecosystem Score		0.65		0.91		0.26		0.59		0.80		0.76
Final Classification		2		1		4		3		2		2

Appendix C: BioCondition Site photos

Table 8: BioCondition site photos

BCO 1	2021	2022	2023	2024	2025
Start				 <p>22 Apr 2024 1:24:37 pm 66° NE BC01-Start</p>	 <p>BC01-Start 4 June 2025 12:30:22:32</p>
End				 <p>22 Apr 2024 1:20:30 pm 272° W BC01-End</p>	 <p>BC01-End 4 June 2025 13:53:27:45</p>

BCO 2	2021	2022	2023	2024	2025
Start			 <p>5 June 2023 4:19:06 pm 200° Sandstone Queensland City of Ipswich Camelshout BC02-ETC</p>	 <p>24 Apr 2024 1:15:13 pm 83° E BC02-start</p>	 <p>BC02-Start 5 June 2025 11:03:12:36</p>



BC04	2021	2022	2023	2024	2025
Start					
End					

BC05	2021	2022	2023	2024	2025
Start		Photo not available			



BCO 6	2021	2022	2023	2024	2025
Start					
End					

Appendix D: Photo monitoring sites

Table 9: Photo monitoring digital images

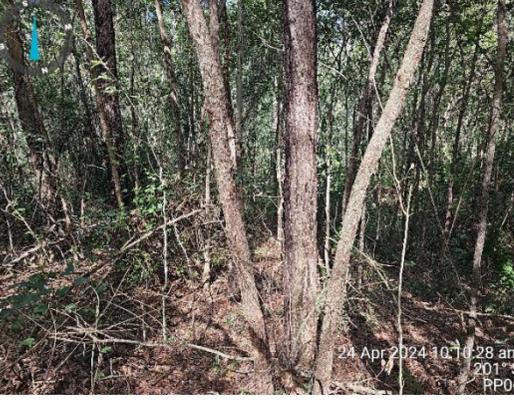
PP01	2021	2022	2023	2024	2025
North					
East					
South					
West					

PP02	2021	2022	2023	2024	2025
North					
East					
South					
West					

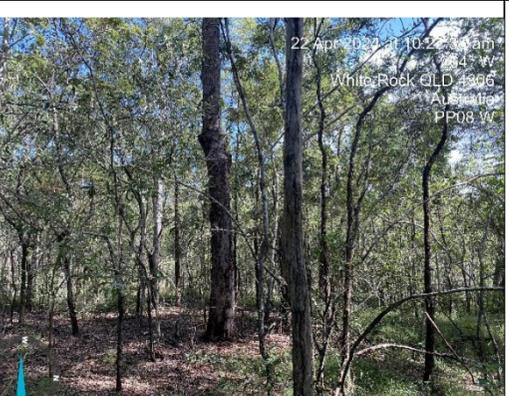
PP03	2021	2022	2023	2024	2025
North					
East					
South					
West					

PP04	2021	2022	2023	2024	2025
North					
East					
South					
West					

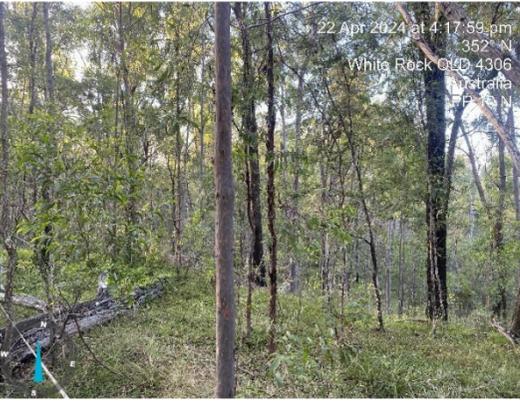
PP05	2021	2022	2023	2024	2025
North				 <p>24 Apr 2024 9:02:49 am 5° N PP05</p>	 <p>PP05 10 June 2025 12:58:28.9</p>
East				 <p>24 Apr 2024 9:02:22 am 105° PP0</p>	 <p>PP05 10 June 2025 12:59:42.4</p>
South				 <p>24 Apr 2024 9:02:12 am 224° SW PP05</p>	 <p>PP05 10 June 2025 12:59:06.4</p>
West				 <p>24 Apr 2024 9:03:27 am 306° NW PP05</p>	 <p>PP05 10 June 2025 13:00:11.7</p>

PP06	2021	2022	2023	2024	2025
North					
East					
South					
West					

PP07	2021	2022	2023	2024	2025
North					
East		<p data-bbox="896 819 1073 846">Photo not available</p>			
South		<p data-bbox="896 1244 1073 1272">Photo not available</p>			
West		<p data-bbox="896 1670 1073 1698">Photo not available</p>			

PP08	2021	2022	2023	2024	2025
North			 <p>8 June 2023 10:45:46 am Unnamed Road White Rock City of Ipswich Queensland PP08-L0-AN</p>	 <p>22 Apr 2024 at 10:20:41 am 135° 35' 39" E White Rock QLD 4306 Australia PP08-N</p>	 <p>4 June 2025 09:57:13:38 PP08-N</p>
East		<p>Photo not available</p>	 <p>8 June 2023 10:45:56 am Unnamed Road White Rock City of Ipswich Queensland PP08-L0-AS</p>	 <p>22 Apr 2024 at 10:21:18 am 137° 37' 37" E White Rock QLD 4306 Australia PP08-E</p>	 <p>4 June 2025 09:57:28:74 PP08-E</p>
South		<p>Photo not available</p>	 <p>8 June 2023 10:46:03 am Unnamed Road White Rock City of Ipswich Queensland PP08-L0-AS</p>	 <p>22 Apr 2024 at 10:22:09 am 138° 18' 58" S White Rock QLD 4306 Australia PP08-S</p>	 <p>4 June 2025 09:58:04:74 PP08-S</p>
West		<p>Photo not available</p>	 <p>8 June 2023 10:46:13 am Unnamed Road White Rock City of Ipswich Queensland PP08-L0-AV</p>	 <p>22 Apr 2024 at 10:22:34 am 134° 47' 47" W White Rock QLD 4306 Australia PP08-W</p>	 <p>4 June 2025 09:58:22:57 PP08-W</p>

PP09	2021	2022	2023	2024	2025
North		Photo not available	 <p>8 June 2023 10:07:36 am Sandstone Boulevard White Rock City of Ipswich Queensland PP07-LN-AN</p>	 <p>22 Apr 2024 at 10:07:49 am 35° 35' S White Rock QLD 4306 Australia PP09 N</p>	 <p>4 June 2025 09:33:10.1 PP09 N</p>
East		Photo not available	 <p>8 June 2023 10:08:27 am Sandstone Boulevard White Rock City of Ipswich Queensland PP07-LO-AE</p>	 <p>22 Apr 2024 at 10:08:55 am 32° E White Rock QLD 4306 Australia PP09 E</p>	 <p>4 June 2025 09:33:42.4 PP09 E</p>
South		Photo not available	 <p>8 June 2023 10:07:58 am Sandstone Boulevard White Rock City of Ipswich Queensland PP07-LO-AS</p>	 <p>22 Apr 2024 at 10:09:07 am 17° S White Rock QLD 4306 Australia PP09 S</p>	 <p>4 June 2025 09:34:01.2 PP09 S</p>
West			 <p>8 June 2023 10:07:08 am Sandstone Boulevard White Rock City of Ipswich Queensland PP07-LN-AW</p>	 <p>22 Apr 2024 at 10:10:17 am 288° W White Rock QLD 4306 Australia PP09 W</p>	 <p>4 June 2025 09:34:25.5 PP09 W</p>

PP10	2021	2022	2023	2024	2025
North					
East		Photo not available			
South		Photo not available			
West		Photo not available			

PP11	2021	2022	2023	2024	2025
North					
East		Photo not available			
South		Photo not available			
West		Photo not available			

PP12	2021	2022	2023	2024	2025
North		Photo not available			
East		Photo not available			
South					
West		Photo not available			

Appendix E: Rapid Lantana Assessment photos

Table 10: Rapid Lantana Assessment digital images

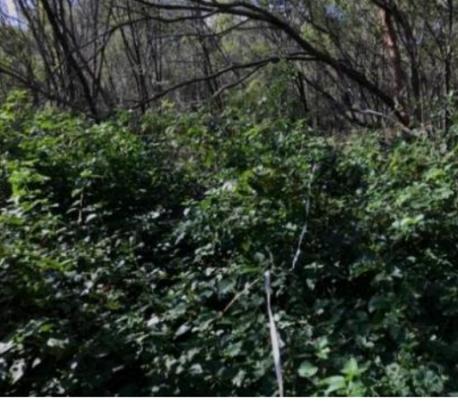
Plot	2021	2022	2023	2024	2025
1		Photo not available			
2					
3					

4		Photo not available			
5					
6					

7		Photo not available			
8					
9					

10			 <p>1 Dec 2023 10:09:26 56.1484469 69.937</p>	 <p>22 Apr 2024 at 10:09:11 am 269° White Rock QLD 430 Austral RL 10</p>	 <p>4 June 2025 09:50:40.42 RL 10</p>
11			 <p>1 Dec 2023 9:54:35 56.1484469 69.937</p>	 <p>22 Apr 2024 at 10:04:37 am 269° White Rock QLD 430 Austral RL 11</p>	 <p>4 June 2025 09:35:39.79 RL 11</p>
12			 <p>1 Dec 2023 10:49:56 56.1485567 69.937</p>	 <p>24 Apr 2024 1:22:33 306°</p>	 <p>4 June 2025 15:25:05.39 RL 12</p>

13			 <p>1 Dec 2023 11:32:10 56J 484879.6937 RL</p>		 <p>R13 5 June 2025 09:23:32.08</p>
14		Photo not available	 <p>1 Dec 2023 11:18:31 56J 484889.6937 RL</p>	 <p>22 Apr 2024 at 3:01:01 243° S White Rock QLD 43 Austra RL</p>	 <p>5 June 2025 241</p>
15			 <p>1 Dec 2023 12:02:56 56J 487183.6938 RL</p>	 <p>22 Apr 2024 at 2:34:00 pm 206° S RL 1</p>	 <p>R15 5 June 2025 09:33:24.29</p>

16			 <p>1 Dec 2023 12:16:58 56J 484950 693</p>	 <p>22 Apr 2024 at 2:10:21 pm 199° White Rock QLD 43 Australia RL 16</p>	 <p>5 June 2025 190° S RL16 Start</p>
17			 <p>1 Dec 2023 1:23:46 56J 484506 6936 45° R</p>	 <p>24 Apr 2024 1:04:38 pm 354° R</p>	 <p>R17 5 June 2025 13:32:04.22</p>
18			 <p>1 Dec 2023 3:40:43 56J 484529 6935 329° R</p>	 <p>23 Apr 2024 at 1:49:41 pm 319° NW White Rock QLD 4306 Australia RL 18</p>	 <p>R18 5 June 2025 15:09:01.54</p>

19					
20					

Appendix F: Post-burn Reports as per the CAMP Bushfire Management Plan

S28 – A OPERATIONAL POST BURN REPORT

BURN NAME	WR_MU_04	Lot/Plan/s No. (all approvals obtained) <input checked="" type="checkbox"/> Yes	1892/SP313517 2/SP339186
Burn No.	WR_MU_04		
Location	White Rock	Road Segment No.	NA
LGA	Ipswich	Proposed Timing	May - August
Date burn started	11/09/2025	Time	12:00
Date burn deemed out	13/09/2025	Time	17:30

Incident Controller	Joshua Bull	Fireland Consultancy
	Name	Position

SITUATION - OUTCOMES

Area to be treated	1.4 Ha	Percentage aim	50-70%	Last Fire	unknown
Actual treated area	1.4 Ha	Percentage	90 %	Severity	Low-Moderate

MISSION – OUTCOMES

Aim & Objectives (Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Reduce fuel hazard by 50-70% across burn area. No engagement of public or private assets. Burn any lantana where possible Minimal impact on community
Outcomes (Outline if the objectives were met, if not why not)	Met. Approximately 90% of the area treated. 1 – 6 M of Scorch in areas treated with reasonable duff left in most places. Unburnt portions are small and mosaic No smoke impact on residents or roads
List recommendations (For burn area, may include fire trail works, etc)	Treat weed areas of lantana

EXECUTION – DETAILS

Weather Stats

Date/Time	Temperature (Degrees C)	Relative Humidity (%)	Wind Speed (km/hr)	Direction	Other
11/09/2025					
10:00	23	56	10	WNW	
11:00	25	54	8	WNW	
12:30	27	51	8	WNW	
13:00	28	48	7	W	
14:30	29	44	7	W	
15:00	29	42	10	W	
16:00	28	38	10	SW	
17:00	25	40	7	SW	

Comments (List any weather conditions that significantly impacted operations)	Significant soil moisture on the southern slopes.				
	Fire danger index	Moderate FBI - <10	Actual KBDI	~98	

Ignition used (Describe the ignition)	<input checked="" type="checkbox"/> On ground ignition <input type="checkbox"/> Aerial Ignition Various line and spot ignitions to vary intensity, coverage and for containment.				
---	--	--	--	--	--

Implementation Comments	Ignitions started at 4.8 and then proceeded either direction down to 4.1 and around to W1. Once back edge was secured then internal ignitions commenced along the western side. More internal ignitions occurred once perimeter was secured,				
--------------------------------	---	--	--	--	--

ADMINISTRATION

Complaints <input checked="" type="checkbox"/> No Issues	Nil.				
Infrastructure damage <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on road network <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on community <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on direct residents or stakeholders <input checked="" type="checkbox"/> No Issues	Nil.				
Other (Include any other comments)	Nil.				

SAFETY

Any incidents

Nil.

Photos



















Burn ID	Fire Name	Planned Area (Ha)	Actual Area Burnt (Ha)	Treatment (%)
Int_WR_04.25	Intrapac 04	1.41	1.41	90

Burnt_Areas



IMT Symbol Type

Location Reference

Property_Boundaries

Burn Plan Area



Ipswich Road Network LE

White Rock Offset Site V1

Intrapac White Rock
MU04 Burn Report Map

0 12.5 25 50
Coordinate System: GDA2020 MGA Zone 56
Map Units: Meter 1:2,000 Date: 21/10/2025



S28 – A OPERATIONAL POST BURN REPORT

BURN NAME	WR_MU_06	Lot/Plan/s No. (all approvals obtained) <input checked="" type="checkbox"/> Yes	1892/SP313517
Burn No.	WR_MU_06		
Location	White Rock	Road Segment No.	NA
LGA	Ipswich	Proposed Timing	May - August
Date burn started	11/09/2029	Time	10:00
Date burn deemed out	13/09/2025	Time	17:00

Incident Controller	Joshua Bull	Fireland Consultancy
	Name	Position

SITUATION - OUTCOMES

Area to be treated	8.76 Ha	Percentage aim	50-70%	Last Fire	unknown
Actual treated area	7.25 Ha	Percentage	80 %	Severity	Low-Moderate

MISSION – OUTCOMES

Aim & Objectives (Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Reduce fuel hazard by 50-70% across burn area. No engagement of public or private assets. Burn any lantana where possible Minimal impact on community
Outcomes (Outline if the objectives were met, if not why not)	Met. Approximately 90% of the area treated. 1 – 6 M of Scorch in areas treated with reasonable duff left in most places. Unburnt portions are small and mosaic Minor smoke impact on residents or roads but very visible resulting in multiple 000 calls received over 2 days.
List recommendations (For burn area, may include fire trail works, etc)	Treat weed areas of lantana 6.9 around to 6.5

EXECUTION – DETAILS

Weather Stats					
Date/Time	Temperature (Degrees C)	Relative Humidity (%)	Wind Speed (km/hr)	Direction	Other
11/09/2025					
10:00	23	56	10	WNW	
11:00	25	54	8	WNW	
12:30	27	51	8	WNW	
13:00	28	48	7	W	
14:30	29	44	7	W	
15:00	29	42	10	W	
16:00	28	38	10	SW	
17:00	25	40	7	SW	
Comments (List any weather conditions that significantly impacted operations)	Significant soil moisture on the southern slopes.				
	Fire danger index	Moderate FBI - <10	Actual KBDI	~98	
Ignition used (Describe the ignition)	<input checked="" type="checkbox"/> On ground ignition <input type="checkbox"/> Aerial Ignition Various line and spot ignitions to vary intensity, coverage and for containment.				
Implementation Comments	Ignitions started at 6.16 and then proceeded either direction down to 6.12 and 6.1 and around to 6.5. Internal ignitions commenced along the southern side. Backing ignitions down the hill. More internal ignitions occurred once perimeter was secured.				
ADMINISTRATION					
Complaints <input checked="" type="checkbox"/> No Issues	Nil.				
Infrastructure damage <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on road network <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on community <input checked="" type="checkbox"/> No Issues	Nil.				
Impact on direct residents or stakeholders <input checked="" type="checkbox"/> No Issues	Multiple call outs due to internal logs smoldering.				
Other (Include any other comments)	Nil.				

SAFETY

Any incidents

Nil.

Photos















Burn ID	Fire Name	Planned Area (Ha)	Actual Area Burnt (Ha)	Treatment (%)
MU_WR_06.24	WR06.24	8.76	7.25	82

- Burnt_Areas
- Property_Boundaries
- Burn Plan Area
- Ipswich Road Network LE
- White Rock Offset Site V1
- IMT Symbol Type
- Location Reference

Intrapac White Rock
MU06 Burn Report Map

Coordinate System: GDA2020 MGA Zone 56
Map Units: Meter 1:3,500 Date: 2/19/2025

Copyright Fireland Information Systems 2025

Appendix F: Koala Monitoring Report

White Rock Koala Monitoring Report

Report No. 4 (2025)

Prepared for Intrapac White Rock Pty Ltd

26 February 2026



Document Tracking

Project Name	White Rock Koala Monitoring Report – Report No. 4 (2025)
Project Number	0003
Version	V1 FINAL
Authors	JF
Reviewed by	RS / SJ
Status	FINAL V1
Last saved on	26/02/2026

Disclaimer

This Report is prepared by Bower Ecology Pty Ltd, who was engaged by Intrapac Pty Ltd (the Client). The Report is solely for the use of the Client and is not intended to and should not be used or relied upon by anyone else. Bower Ecology accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report and its supporting material by any third party. Information provided is not intended to be a substitute for other specific assessments, or legal advice in relation to any matter. Readers should consider that legislation changes from time to time. If changes have occurred, up-to-date information should be obtained.

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1 Introduction

1.1. Project Background

Ripley Land Holdings Pty Ltd, Northrow (Qld) Pty Ltd and TDC (Qld) Pty Ltd (the proponents) received approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in December 2019 for the proposed development of a mixed-use sub-division and associated infrastructure at White Rock in Ripley Valley (EPBC 2014/7388) (the project).

The White Rock development includes five subject lots, covering a total of 472.8 ha, with the proposed development footprint encompassing a total of 224 ha (Figure 1). The development will result in a number of uses, including residential, commercial, greenspace, recreation/sporting, educational, roads and easements for internal services.

A Koala offset area of approximately 240 ha was established to the north and east of the project adjoining the White Rock - Spring Mountain Conservation Estate (Figure 1). The initiative aims to enhance habitat quality and landscape connectivity of local Koala populations.

A Koala Management Plan (KMP) and Conservation Area Management Plan (CAMP) have been prepared in support of assessment requirements under the EPBC Act. These plans outline management actions to avoid and minimise impacts of the development on Koala, as well as describing management and monitoring of this proposed Koala offset area. The plans require monitoring and reporting to be undertaken every two years.

1.2. Objectives and Scope of Work

The purpose of the monitoring survey is to undertake a targeted survey within the study area (the Koala Offset Area illustrated in Figure 1) to determine the current Koala population and health.

Specifically, the objectives of the monitoring are to:

- Confirm the population size within the study area via a systematic survey.
- Identify the landscape usage and important areas of habitat for foraging, breeding and connectivity.
- Identify the incidence / severity of disease, especially Chlamydia.
- Compare current population data with baseline population data.

This report presents the third Koala monitoring event and has occurred during a time when approximately 70% of the proposed development footprint (adjacent to the Koala offset area) has been cleared of vegetation (Figure 1).

The Study Area

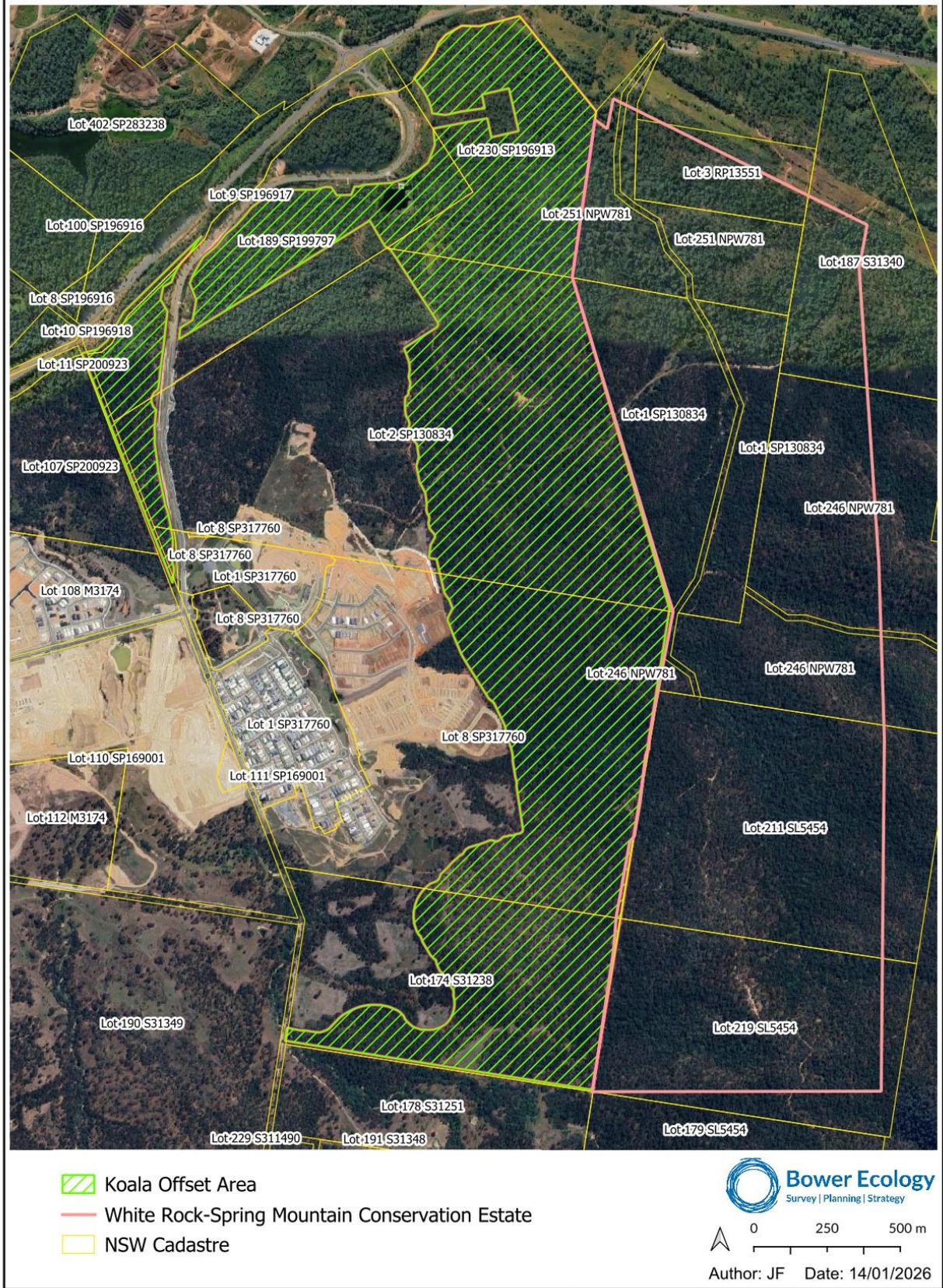


Figure 1: Project area and location

1.3. Koala Habitat within the Study Area

Koala habitat is defined as land that supports Koalas through the inclusion of specific habitat attributes. Koala habitat contains Koala food tree species, has connectivity to other Koala habitat, and is located near to areas occupied by Koalas (DCEEW, 2022). Koala food trees are generally considered to be any tree of the following genus: *Angophora*, *Corymbia*, *Eucalyptus*, *Lophostemon* and *Melaleuca* (ANU, 2021).

The study area Koalacomprises a total area of 240.8 ha, of which 233 ha have been mapped as primary and secondary Koala habitat (disturbed and undisturbed) as shown in Figure 2. Eight different vegetation communities have been mapped within the study area (Table 1 and Figure 2).

Past surveys undertaken by Natural Solutions (2008) and Enviro-Studio (2013) within the study area and surrounds have failed to detect Koalas within the area. However, several Koala scats were recorded to the east in White Rock-Spring Mountain Conservation Estate as part of Ipswich City Council's Koala surveys undertaken in September 2015.

Eco Logical Australia Pty Ltd (ELA) has also previously conducted targeted surveys for Koala in September 2016 with multiple scats encountered, as well as one Koala sighting in the northern extent of the project area (Figure 2).

In 2019, an initial baseline survey was conducted following CAMP and KMP protocols (ELA 2019). This survey established the baseline under these management plans, in accordance with sections 6.2 and 6.3 of the KMP. Several scats were recorded in the north and south of the study area during the baseline survey (Figure 2). Surveys were repeated in 2021, as per the management plans, and evidence of Koala was recorded (Bower Ecology, 2021). Spotlighting detected one Koala in the east of the study area, and male Koala calls were recorded in the same area; scats were confirmed at two locations in the east and west of the study area (Figure 2).

Table 1: Summary of study area and habitat type

Habitat Value	Dominant vegetation community	Area (ha)	Proportion of area (%)
Primary	Narrow leaved Ironbark, Red Gum and Silver leaved Ironbark; Forest Red Gum, Swamp Box and Ironbark	12.13	5.04
Primary (disturbed)	Acacia +/- scattered Eucalypts; Forest Red Gum on alluvium; Forest Red Gum, Swamp Box and Ironbark; Narrow leaved Ironbark, Red Gum and Silver leaved Ironbark;	11.91	4.95
Secondary	Spotted Gum, Ironbark and other Eucalypts; White Mahogany, Grey Gum and Spotted Gum	145.43	60.93
Secondary (disturbed)	Exotic Grassland +/- sparse Acacia and Eucalypts; Spotted Gum; Spotted Gum, Ironbark and other Eucalypts; White Mahogany, Grey Gum and Spotted Gum	63.80	26.49
Non-habitat	-	7.55	3.13
Total:		240.82	100.00

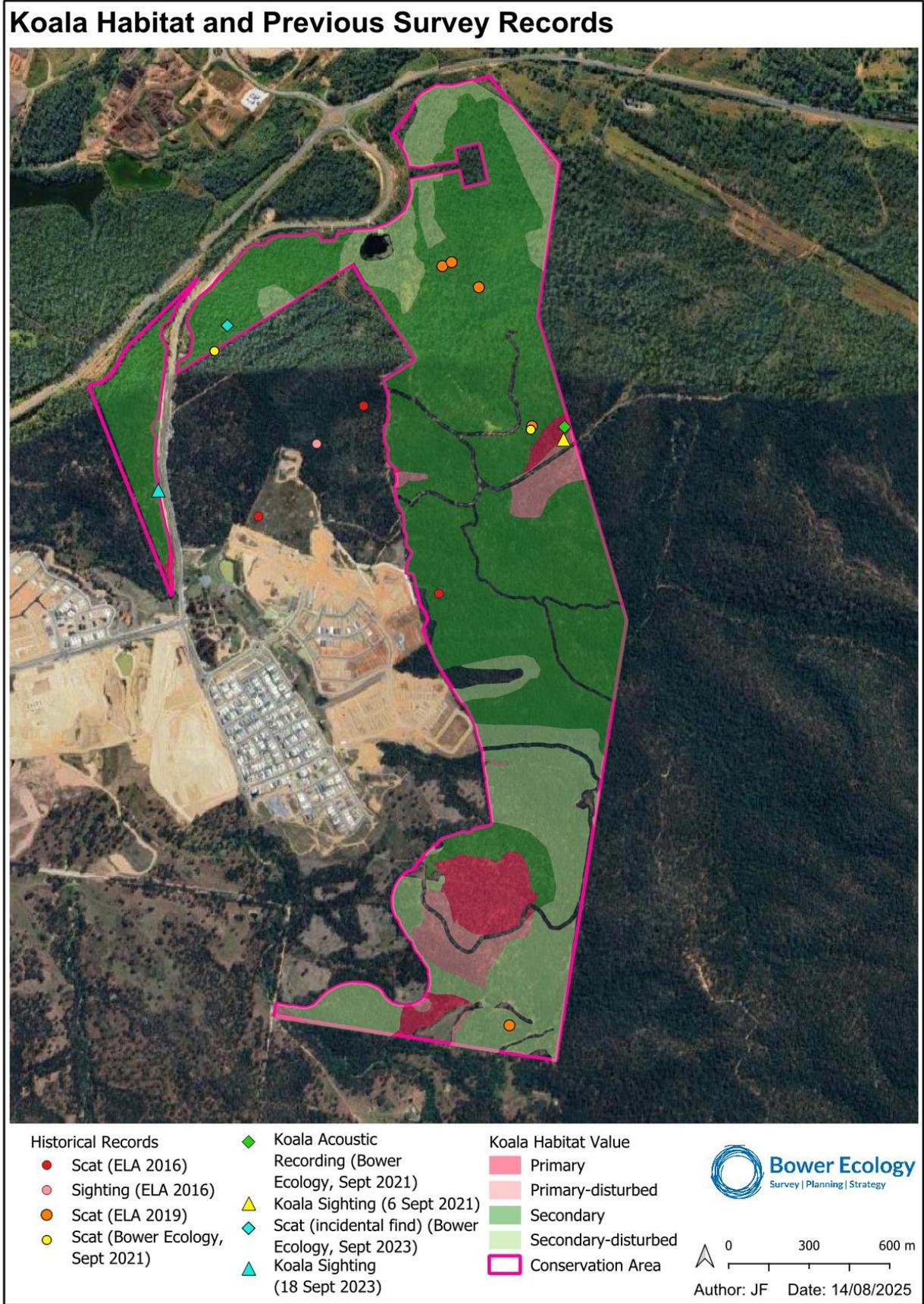


Figure 2: Koala habitat and previous survey records

2 Methodology

Field surveys were undertaken over a four-week period between the 10 October and 7 November 2025, inclusive.

The monitoring survey consisted of data collection by two ecologists, using the following three methodologies:

- Strip transects using thermal drone.
- Acoustic detectors.
- Regularised Grid-based Spot Assessment Technique (RGSAT) surveys.

In accordance with recommendations set out in the *EPBC Act referral guidelines for the vulnerable Koala* (DoE, 2014), Koala surveys were carried out during October, over a period of nine days and seven nights. Koala activity is at its peak between August – January (breeding season) and resident breeding females are most easily observed during this time. The following sections outline the methods undertaken for each monitoring component.

2.1. Field Survey Methods

2.1.1. Strip Transects – Thermal Detection Drone

Systematic searches of multiple strip transects with fixed boundaries were undertaken across the study area, using a drone mounted with both a RGB full colour and a thermal camera, in accordance with Koala survey guidelines outlined by Witt et. al. (2020) and Youngentob et. al. (2021).

Prior to the baseline survey event (2019), the location of survey transects was allocated at desktop level and refined during the baseline field survey (ELA 2019). Preliminary mapping of the location of transects was also undertaken in 2019 to ensure adequate coverage (>30% of the study area) was achieved. Transects were arranged systematically to provide adequate coverage of all habitat types within the study area and were located perpendicular to the contours of the landscape where possible.

The location of the 2019 baseline monitoring strip transects was replicated for the 2023 survey. A total of 35 strip transects comprising a survey area of approximately 63 ha were conducted across study area. Location of strip transects are presented in Figure 3.

A Remotely Piloted Aircraft (RPA) accredited field team used a thermal drone (DJI Mavic 3T) to survey the 35 pre-established strip transects; parallel, linear transects, as per Beranek et. al. (2021). Surveys were conducted in the two to three hours after dawn, depending on weather conditions, to maximise thermal contrast between Koalas and their surroundings. Any thermal signatures found were cross-referenced with a 4k colour camera for positive species identification (Howell et. al., 2022; Witt et. Al., 2020).

Koala density was calculated for the study area using the number of independent Koalas detected per hectare of bushland searched.

2.1.2. Acoustic Detectors

Acoustic detectors were used to determine Koala presence / abundance within study area. Unattended acoustic recorders were placed within study area in vegetation providing Koala habitat.

Three bioacoustic recorders were deployed across the study area for seven nights between 10 and 17 October 2025. Each of the three bioacoustic recorders were in operation for nine hours per night for six consecutive nights. Recording began one hour before sunset and finished eight hours after

sunset. A total of 21 nights (192 hours) of recording time was captured and analysed for Koala calls. Bioacoustic recorders 1 and 2 were relocated midway through the survey to increase coverage across the study area. The locations where the recorders were deployed are illustrated in Figure 3.

2.1.3. Regularised Grid-based SPOT Assessment Technique Survey

As per Biolink (2008), the RGSAT survey technique is an adaptation of the Spot Assessment Technique (SAT) methodology originally developed by Phillips and Callaghan (2011). It enables the detection of Koala habitat use at a low carrying capacity as well as the delineation of the areal extent that is currently utilised or occupied.

The 33 RGSAT sites surveyed during the 2019 baseline and 2023 monitoring events were re-surveyed during this 2025 monitoring event (Figure 3). During field surveys, once located, each point was sampled using the SAT methodology as per Phillips and Callaghan (2011).

The location of Koala scats identified were recorded and a sample of the scat was collected. Koala scats identified incidentally, either during the strip transects or whilst walking in between sites were also recorded and a sample was collected. Scats were identified by ecologists in the field; any suspected Koala scats were sent to a scat identification expert for further verification.

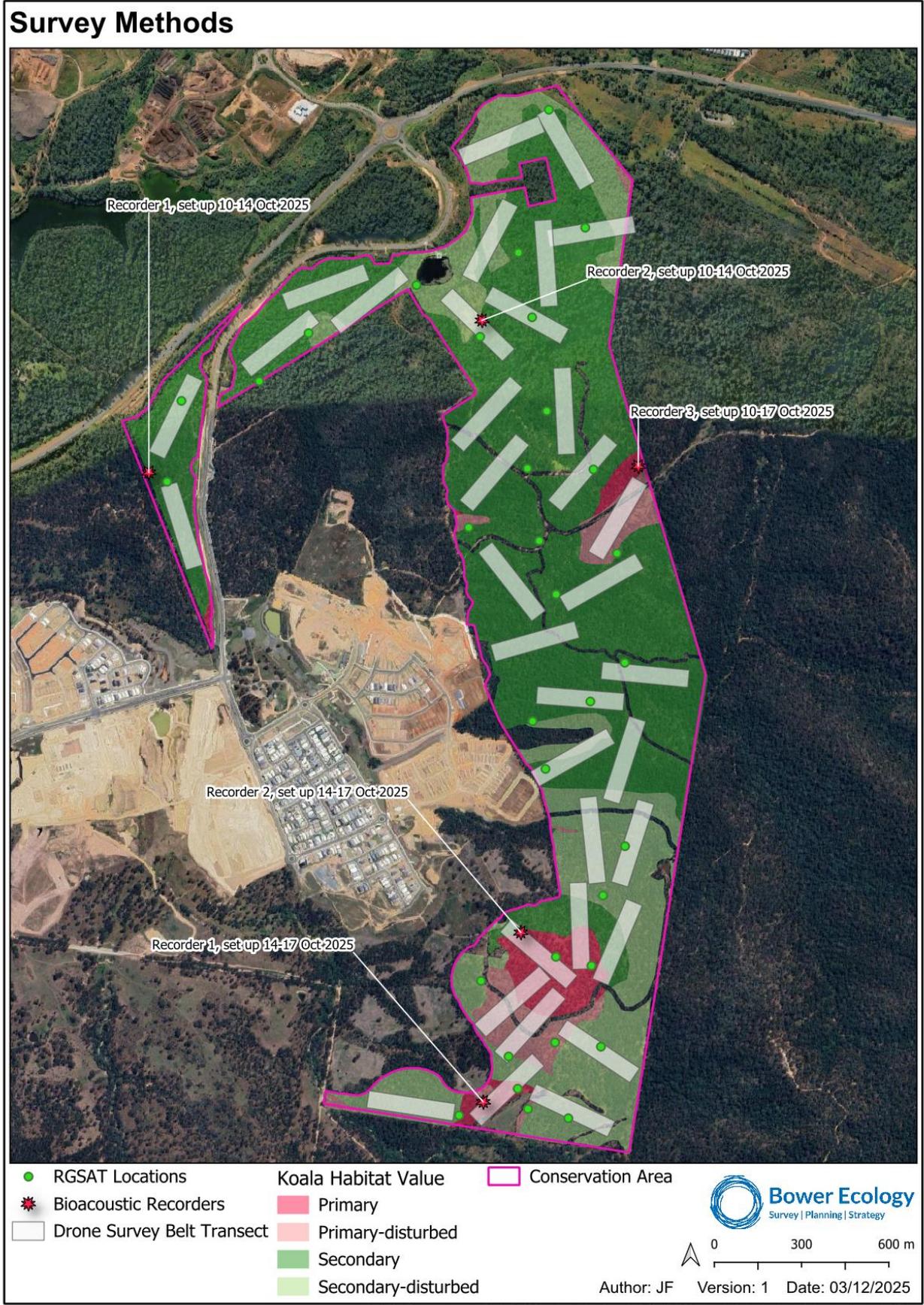


Figure 3: Transect, call playback, RGSAT and bioacoustic recorder locations

2.2. Data Analysis

Acoustic data was analysed with software specifically designed for handling sound files visually presenting spectrograms. This enabled visual and audial review of each hour of recording data to identify Koala calls.

All scats collected were sent for confirmation of species by scat experts at Scatsabout.

The results of the RGSAT surveys were used to calculate a Koala activity level across the study area in accordance with the method described in Phillips and Callaghan (2011). The Koala activity level is calculated as the percentage equivalent of the proportion of surveyed trees where Koala scat are identified. For the purposes of this assessment, an average Koala activity level for the study area was calculated as the number of trees where scats were identified divided by the total number of trees surveyed and the result converted to a percentage.

2.3. Survey Limitations

All fauna assessments are subject to inherent limitations in the detection success of targeted species. These limitations often result in a degree of false-absence records (i.e., a species is present, but not detected). It is important that the limitations to surveys are identified, and the survey results are viewed with these constraints in mind.

Limitations that may have affected the Koala monitoring assessment include:

- Koala have large home ranges and may not have been present in this part of their home range during the survey. This is particularly relevant to the current survey area, which is located directly adjacent to large tracts of suitable Koala habitat within the White Rock Conservation Area.
- Biological factors such as sex, age-class, and breeding biology, which may influence Koala habitat use and detectability during different times of year, although surveys were undertaken during the spring breeding period to maximise detection.

Irrespective of the limitations identified, the combination of survey timing, design and study area coverage ensured the best possible chances for Koala detection.

Importantly, these limitations do not affect the repeatability of survey technique in future years.

3 Results

3.1. Survey Timing and Conditions

Climate data was obtained from recordings taken at Greenbank (Defence) weather station located approximately 14 km east of study area (BoM, 2025). Weather conditions leading up to and at the time of survey are presented in Table 2. Rainfall in the three months (July – September) leading up to survey period was 100.6 mm which was similar to that of the long-term average of 110 mm for the same months.

Table 2: Weather conditions preceding and during the field survey

Date	Temperature (°C)		Total rainfall (mm)	Max wind gust (km/h)
	Minimum	Maximum		
July 2025	1.6	24.4	76.4	59
August 2025	7.7	22.2	23.4	46
September 2025	10.2	26.5	0.8	46
10 October 2025	17.4	30.1	0	30
11 October 2025	17.1	33.3	0	33
12 October 2025	19.8	34.3	0	26
13 October 2025	19.6	31.5	5.6	30
14 October 2025	19.7	27.7	0	28
15 October 2025	18.1	29.6	0	33
16 October 2025	14.5	27.2	0	30
17 October 2025	12.8	30.3	0	33
22 October 2025	14.9	31.4	0	33
23 October 2025	16.7	34.1	0	33
24 October 2025	18.5	34.4	0	30
5 November 2025	10.9	30.2	0	30
6 November 2025	13	28	0	30

3.2. Strip Transects

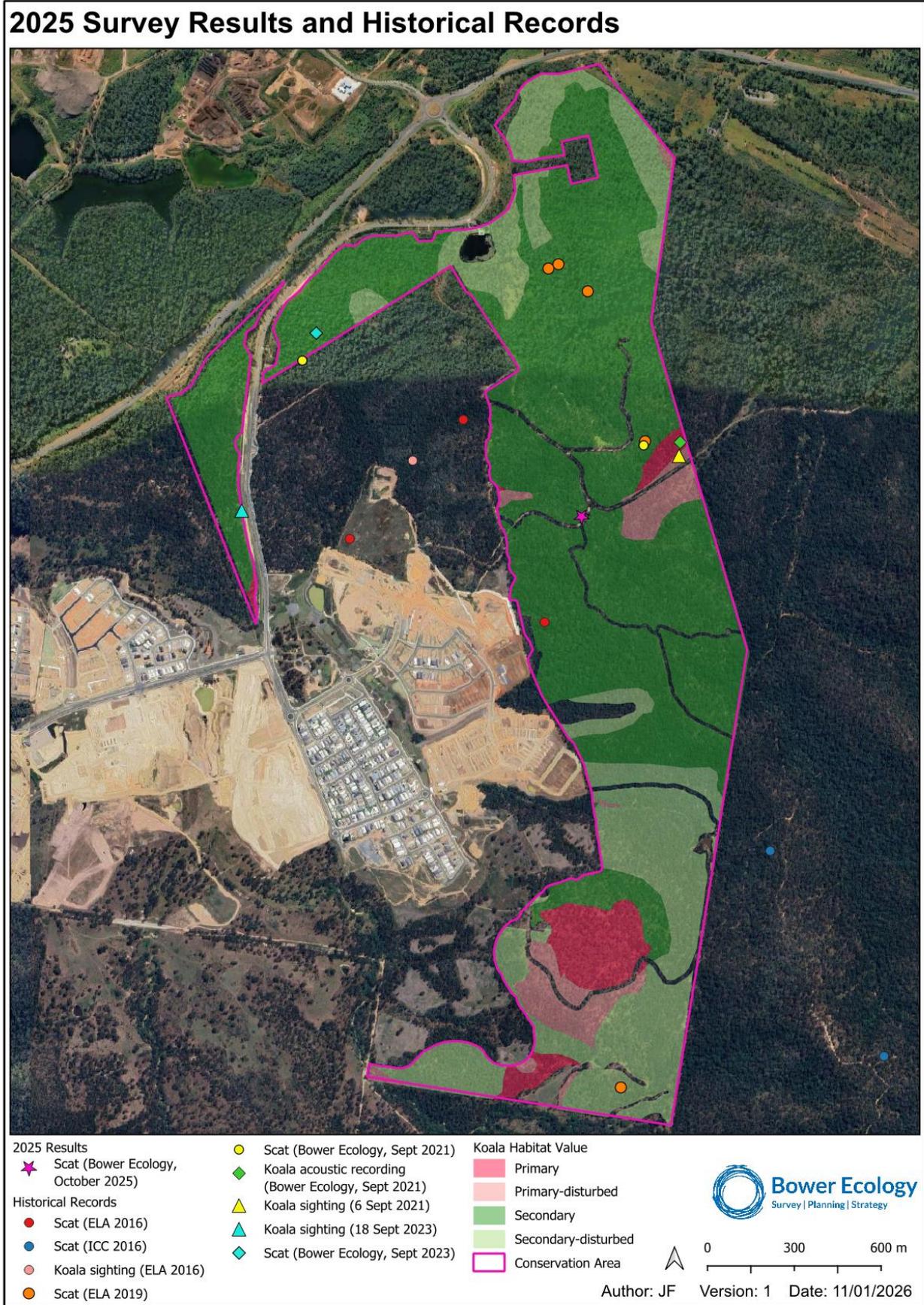
No Koalas were detected during diurnal drone strip transect surveys.

3.3. Acoustic Detectors

No Koala calls were recorded on the bioacoustic recorders.

3.4. Regularised Grid-based Spot Assessment Technique Survey

Koala scats were found at one of the 33 RGSAT survey locations. From this result, the average Koala activity level for the entire site was calculated to be 0.1%, categorised as low Koala use.



D:\Bower Ecology\Shared drives\GIS\0003 White Rock\Workspace\2025 Koala Monitoring\20251008 Koala Monitoring V1.qgz

Figure 4: Results of the 2025 Koala surveys, including historical records

3.5. General Fauna Observations

A total of 13 native fauna species and one exotic species were opportunistically observed during spotlighting surveys and are summarised in Table 3. All native species are listed under the EPBC Act as Least Concern.

Table 3: Fauna observations

Animals	Observations
Birds	Laughing Kookaburra (<i>Dacelo novaeguineae</i>) Fan-tailed Cuckoo (<i>Cacomantis flabelliformis</i>) Eastern Whip-bird (<i>Psophodes olivaceus</i>) Australian Fig-bird (<i>Sphecotheres vieilloti</i>) Purple Swamp-hen (<i>Porphyrio porphyrio</i>) Australian Wood Duck (<i>Chenonetta jubata</i>) Rainbow Lorikeet (<i>Trichoglossus moluccanus</i>) Pacific Black Duck (<i>Anas superciliosa</i>) Dusky Moorhen (<i>Gallinula tenebrosa</i>) Eurasian Coot (<i>Fulica atra</i>)
Macropods	Eastern Grey Kangaroo (<i>Macropus giganteus</i>)
Reptiles	Eastern Water Dragon (<i>Intellagama lesueurii</i>) Lace Monitor (<i>Varanus varius</i>)
Exotic Species	European Hare (<i>Lepus europaeus</i>)

4 Discussion

4.1. Koala Monitoring Outcomes

According to SAT calculations, Koala activity was determined to be 0.1%. This is slightly higher than the previous monitoring event in 2023, in which Koala activity was 0%, but lower than both the 2019 baseline results (0.51% activity) and 2021 monitoring results (0.41% activity). All results indicate a low Koala population density. The reduction in calculated activity in comparison to the baseline, however, is unlikely to represent a reduction in actual Koala activity, as scat records confirm the species' continued presence within the study area.

Based on the location of the recorded scat (Figure 4), Koalas were determined to be utilising the secondary habitat that dominates the study area. However, given the historical observations of Koala and scats across the study area (Figure 2), it is expected that Koalas utilise all habitat (primary, secondary and disturbed) across the entire study area.

4.2. Audit Against Monitoring Requirements

Table 4 provides an audit of how each of the monitoring objectives from the KMP have been achieved during this survey.

Table 4: Audit against monitoring objectives.

Monitoring objectives	Survey results
Confirm the population size within the study area via a systematic survey	Koala are confirmed to be utilising habitat within the study area via the detection of scats in secondary habitat. Whilst a numerical kKoala population size could not be established, it is expected to be low due to the absence of evidence recorded during survey efforts.
Identify the landscape usage, and hence important	Several historical Koala records are located within the study area and surrounding region. Koala are confirmed to be utilising habitat in the study area via the detection of scat. Koala are also expected to be utilising the

areas of habitat for foraging, breeding and connectivity	small areas of primary, primary (disturbed) and secondary (disturbed) habitat within the study area, as these areas have been determined to have greater Koala habitat value and there are no known barriers to Koala utilisation. Although scat records were located in the central area of the study area, the entire study area is predicted to provide foraging, breeding and connectivity habitat for Koala.
Identify the incidence / severity of disease, especially Chlamydia	As no Koalas were sighted, this was unable to be undertaken during this monitoring event. This element of the scope will continue to be included in future monitoring events.
Compare current population data with baseline population data.	The average Koala activity level for the study area was determined to be 0.1%. This is slightly more than the previous monitoring event in 2023 (0%), but a reduction in the Koala activity level of 0.51% determined by the baseline survey in 2019 and in the activity level of 0.41% determined in 2021 monitoring, as discussed in Section 4.1 However, evidence of Koalas was recorded incidentally, confirming the species' continued presence within the study area, as discussed in Section 4.1 .

5 References

- Australian National University (ANU), 2021. *A review of Koala habitat assessment criteria and methods*. The Australian National University, Canberra. Available online: <https://www.dcceew.gov.au/sites/default/files/documents/review-Koala-habitat-assessment-criteria-and-methods-2021.pdf>
- Biolink Ecological Consultants (Biolink), 2008. Report to NSW Dept. Environment and Climate Change: The utility of regularized, grid-based SAT (RGB-SAT) sampling for the purposes of identifying areas being utilized by Koalas (*Phascolarctos cinereus*) in the South-east Forests of NSW – a Pilot Study. *Office of Environment and Heritage, NSW*.
- Bower Ecology Pty Ltd 2021, *White Rock Koala Monitoring Report - Report No. 2 (2021)*. Prepared for Intrapac Property Pty Ltd
- Bower Ecology Pty Ltd 2023, *White Rock Koala Monitoring Report - Report No. 3 (2023)*. Prepared for Intrapac Property Pty Ltd
- Bureau of Meteorology (BoM) 2025. Climate data online: Moranbah Airport. Available: <http://www.bom.gov.au/climate/data/>
- DEC, 2004, Threatened Species Survey and Assessment: Guidelines for developments and activities (working draft), New South Wales Department of Environment and Conservation, Hurstville, NSW.
- Department of the Environment (DoE), 2014. *EPBC Act Referral Guidelines for the vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)*, Australian Government, Canberra.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2022. *Identifying habitat for the endangered Koala*. Available online: <https://www.dcceew.gov.au/environment/epbc/publications/identifying-habitat-for-the-endangered-Koala>
- Eco Logical Australia, 2019. *White Rock Koala Baseline Monitoring Report*. Prepared for Intrapac Property Pty. Ltd.
- Enviro-Studio, 2013. Vegetation and Flora Report.
- Howell, L. G., Clulow, J., Jordan, N. R., Beranek, C. T., Ryan, S. A., Roff, A., and Witt, R. R. 2022. *Drone thermal imaging technology provides a cost-effective tool for landscape-scale monitoring of a cryptic forest-dwelling species across all population densities*. *Wildlife Research*, Vol. 49, pp 66-78.
- Natural Solutions. 2008. Ecological Assessment for Ripley Valley Land Holdings No. 4 Pty Ltd
- Phillips, S and Callaghan J. 2011. The Spot Assessment Technique: a tool for determining localised levels of habitat use by Koalas (*Phascolarctos cinereus*). *Australian Zoologist*. Vol 35 (3), pp 774 – 780
- Witt, R. R., Beranke, C. T., Howell, L. G., Ryan, S. A., Clulow, J., Jordan, N. R., Denholm, B., and Roff, A. 2020. *Real-time drone derived thermal imagery outperforms traditional survey methods for an arboreal forest mammal*. *PLoS ONE*, Vol. 15(11).
- Youngentob, K.N, Marsh, K.F., Skewes, J. 2021 A review of Koala habitat assessment criteria and methods, report prepared for the Department of Agriculture, Water and the Environment, Canberra, November. CC BY 4.0.