Ecological and Rehabilitation Monitoring Report 2025

Lynwood Quarry, NSW

Holcim Australia Pty Ltd

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Prepared by:

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Making Sustainability Happen

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
2.0	14 May 2026	F Iolini	T Meers	J Pepper
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Basis of Report

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Holcim Australia Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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1.0 Introduction

1.1 Background

The Lynwood Quarry (the 'site') is a hard rock quarry located approximately two kilometres west of Marulan within the Southern Highlands Interim Biogeographic Regionalisation for Australia (IBRA) Region and Bungonia Subregion of New South Wales (NSW) (see Figure 1).

Initial planning consent for the Lynwood Quarry was granted to Cemex (now Holcim) on 21 December 2005 for an approved quarry output of five million tonnes per annum. Since the original development approval, five modifications have been approved. Quarrying operations are permitted until 1 January 2038. Ecological monitoring is a requirement of the project approval and the associated ecological reports and approved management plans.

SLR Consulting Australia Pty Ltd (SLR) has undertaken ecological and rehabilitation monitoring at the site since 2020 and was again commissioned by Holcim (Australia) Pty Ltd (Holcim) to undertake monitoring in 2025. In 2020, SLR established four retained vegetation monitoring plots (R1-R4) within areas of retained vegetation, and baseline flora (BAM plot) and fauna (diurnal and nocturnal census) data was collected at each location. In the same year, SLR also established eleven *Leucochrysum albicans* var. *tricolor* (Hoary Sunray) monitoring plots.

In 2021, five rehabilitation monitoring plots (RM1-RM5) were established within areas of rehabilitation, and two additional Box-Gum Woodland vegetation monitoring plots (BG1-BG2) were installed. In 2022, a further two core riparian zone monitoring plots (CR1-CR2) were established within the riparian corridors of Jaorimin and Marulan creeks.

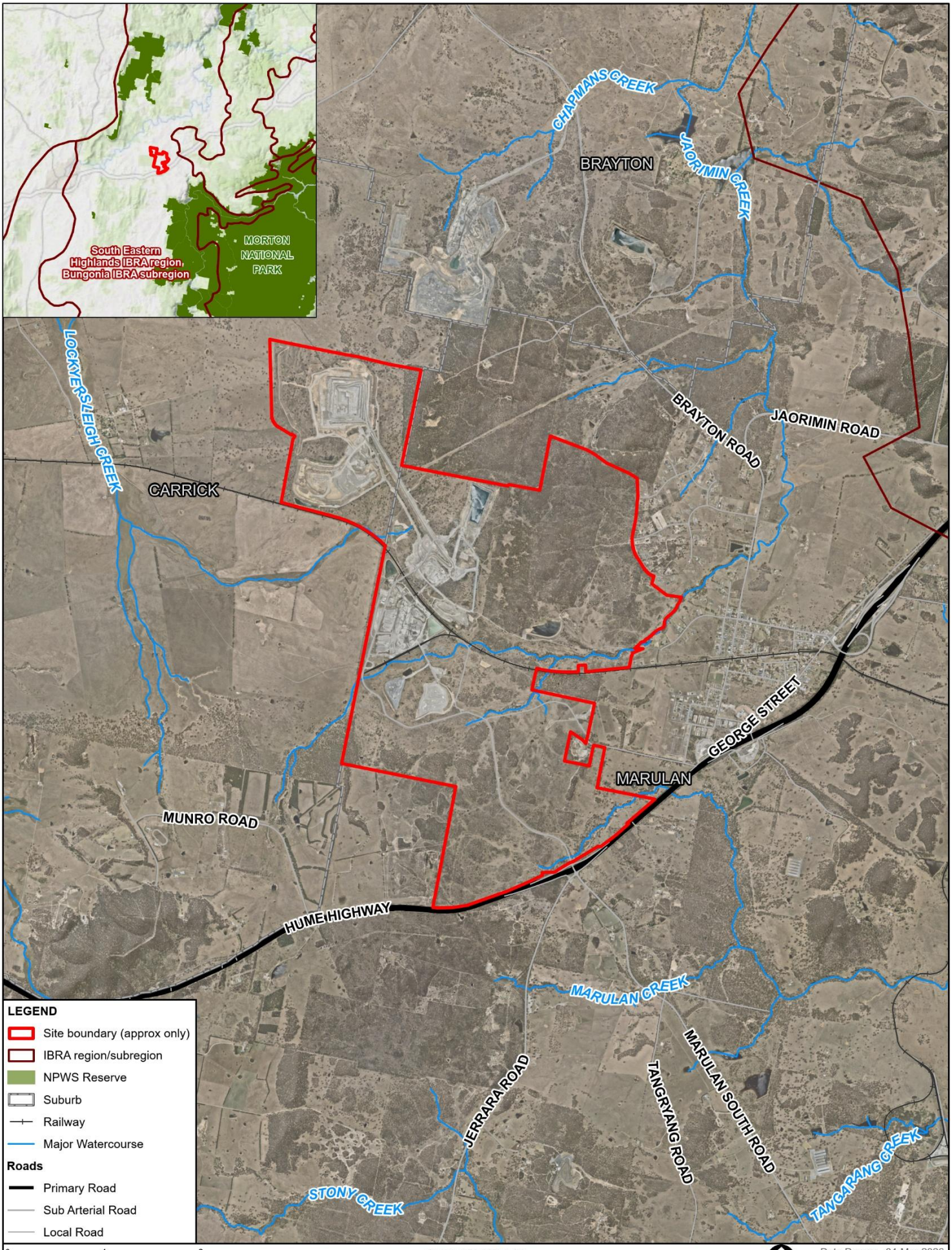
1.2 Previous Ecological Reports

Various documents were prepared during the approval phase of the quarry (Umwelt 2005, 2011, 2013, 2018a, 2018b) and have been relied upon for background information on the ecology and management of the site. A summary of previous ecological reports follows.

1.2.1 Ecological Assessment

Key findings of the Ecological Assessment (Umwelt 2005) are as follows:

- Five broad vegetation types occur across the site: Tableland Low Woodland, Western Tablelands Dry Forest, Tableland Grassy Box-Gum Woodland, Riparian Gum Box-Apple Woodland, and Camden Woollybutt Low Open Forest.
- No threatened flora species were recorded; however, potential habitat exists for several threatened plant species listed under the NSW *Biodiversity Conservation Act 2016* (BC Act), namely: *Diuris aequalis* (Buttercup Doubletail), *Diuris tricolor* (Pine Donkey Orchid), *Pomaderris cotoneaster* (Cotoneaster Pomaderris), *Genoplesium plumosum* (Tallong Midge Orchid), and *Kunzea cambagei* (Cambage Kunzea).
- Areas of retained vegetation across the site provide habitat for a suite of local fauna species, including several species listed as vulnerable under the BC Act: Speckled Warbler (*Pyrrholaemus sagittatus*), Squirrel Glider (*Petaurus norfolcensis*), Eastern Coastal Free-tailed Bat (*Micronomus norfolkensis*; previously Eastern Freetail-bat), Eastern False Pipistrelle (*Falsistrellus tasmaniensis*), and Large Bent-winged Bat (*Miniopterus orianae oceanensis*; previously Eastern Bentwing-bat), among other species.



Data Source: NSW SS, 2020
Aerial imagery supplied by Nearmap (January, 2026)

SLR

SITE LOCATION

FIGURE 1

Path: \\au.slr.local\corporate\Projects-SLR\630-SrvNTL\630-NTL\630.031740.00001 Lynwood Ecology and Rehab Monito\06 SLR Data\01 GIS\GIS\630031740_LynwoodEcologicalMonitoring\630031740_LynwoodEcologicalMonitoring.aprx\630031740_F01_SiteLocation

- To mitigate impacts of the development, the Ecological Assessment proposed monitoring within retained vegetation on a three yearly basis. This would involve establishing four monitoring locations across the Habitat Management Area (HMA), Jaorimin Creek Management Area, and Cultural Management Area (CMA). Monitoring was to include a standard 20 m × 20 m flora quadrat to record species diversity and structural composition, supplemented by photo monitoring and fauna surveys targeting threatened species. Installation and annual monitoring of nest boxes for a period of five years was also proposed.

1.2.2 Box-Gum Woodland Management Plan

Key aspects of the Box-Gum Woodland Management Plan (Umwelt 2013) are as follows:

- During construction, the site was found to contain a large population of the threatened plant *Leucochrysum albicans* var. *tricolor* (Hoary Sunray), which at the time was listed as vulnerable, under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The site also includes areas of White Box-Yellow Box-Blakely's Red Gum Woodland, listed a critically endangered ecological community (CEEC) under the BC Act and the EPBC Act[1].
- To mitigate and offset the loss of these threatened entities, the plan outlines management actions, regeneration measures, and revegetation strategies.
- A Biodiversity Offset Area (BOA) was established, incorporating approximately 185 ha in the south-west portion of the site and including the CMA. As such, three-yearly plot monitoring in the CMA (as previously proposed under the Rehabilitation Plan) was considered suitable to meet retained vegetation monitoring requirements for the biodiversity offset area.
- The plan also commits to annual monitoring and reporting to assess rehabilitation success and overall condition, including weed and pest animal presence, occurrence of *Leucochrysum albicans* var. *tricolor*, and other matters of national environmental significance (MNES) listed under the EPBC Act.

1.2.3 Rehabilitation and Landscape Management Plan

The relevant ecological and rehabilitation components of the Rehabilitation and Landscape Management Plan (RLMP; Umwelt 2018a) are summarised as follows:

- Rehabilitation during the first five years of operations focuses on three areas: the haul road construction area, the western amenity bund, and the southern edge of the overburden emplacement area.
- Key elements of the rehabilitation strategy include:
  - Early, timely, and progressive rehabilitation of disturbed areas.
  - Shaping the southern and Lynwood overburden emplacement areas into irregular landforms that resemble the surrounding natural terrain, where practicable.
  - Stockpiling stripped topsoil in mounds no greater than 3 m high and seeding stockpiles with a cover crop if they are to remain in place for more than six months.

[1] The Hoary Sunray *Leucochrysum albicans* var. *tricolor*, is currently listed as 'endangered', under both the BC Act and EPBC Act.

  - Covering shaped areas with topsoil and seeding with a mix of native species and cover crops to establish grassland and woodland native vegetation communities.
  - Placing surface habitat features (e.g. large rocks, logs, and salvaged trees) across rehabilitated areas to provide fauna habitat and support landform stability.
- Weed control measures include comprehensive weed surveys across all quarry areas every four years to inform removal programs. Removal efforts prioritise noxious[2] species.
- Feral animal control programs are implemented as required and include inspections to identify significant populations.
- Granite pit benches are seeded with a native tree species mix and a grass species mix consistent with that used on the safety bund.
- Overburden emplacement areas south of the Main Southern Railway are seeded with species representative of Tableland Low Woodland, while areas north of the railway are to be seeded with a mixture of Tableland Grassy Box-Gum Woodland and Western Tablelands Dry Forest communities.
- Rehabilitation of the southern overburden emplacement area and the western amenity bund is intended to establish Plant Community Type (PCT 1330[3]) Yellow Box-Blakely's Red Gum grassy woodland on the tablelands of the South Eastern Bioregion.
- Holcim is to establish and maintain the HMA and Jaorimin Creek corridor to conserve ecological values. Management actions include fencing and signposting the boundaries and removing dilapidated fencing. The HMA covers approximately 130 ha, of which 105 ha is currently vegetated, with approximately 25 ha proposed for rehabilitation through assisted regeneration and planting.
- Established species are to reflect existing vegetation communities within the HMA, including Western Tablelands Dry Forest, Tableland Grassy Box-Gum Woodland, and Tableland Low Woodland. Riparian plantings along the creek line include *Acacia mearnsii* and *A. dealbata*.
- Remaining remnant woodland outside the quarry footprint and designated management areas is to be managed throughout the life of the project to maintain ecological values. Management actions include controlling grazing, implementing weed and feral animal control, applying sediment and erosion controls, and encouraging natural regeneration.
- Arboreal habitat is maintained through the relocation of salvaged tree hollows or installation of nest boxes. Nest boxes are monitored annually for five years, followed by condition inspections every four years.
- Ecological monitoring includes:
  - Annual monitoring of vegetation screens for four years.
  - Three yearly monitoring of retained vegetation, transitioning to 10 yearly once positive results are achieved for three consecutive monitoring cycles.

[2] Now known as 'priority weeds' under the *Biosecurity Act 2015*

[3] As part of the revised Eastern NSW PCT classification project released in 2022 this PCT underwent a complex split to PCT 3373 and PCT 3376

  - Three yearly fauna monitoring, transitioning to 10 yearly once positive results are achieved for three consecutive monitoring cycles.
  - Annual nest box monitoring for five years, followed by four yearly condition inspections.
- Preliminary completion criteria are provided for key rehabilitation works and the HMA (refer to Section 4.0).

1.2.4 Riparian Area Management Plan Marulan Creek Catchment Area

The Riparian Area Management Plan for Marulan Creek (Umwelt 2011) outlines management measures to address impacts to riparian areas during the construction and operation of Lynwood Quarry. The primary impacts in the vicinity of Marulan Creek are associated with construction of the access road, including the construction compound and culvert at the creek crossing.

In relation to rehabilitation, the plan states:

- Holcim will implement a rehabilitation program along existing drainage lines to reduce bank and bed erosion and associated sediment transport, where practicable.
- Initial rehabilitation includes fencing the third order section of Marulan Creek to exclude cattle and promote natural regeneration. The fenced area is to be inspected annually for the first three years to assess natural regeneration. If acceptable regeneration is not achieved by the third year, supplementary planting and other regeneration measures in accordance with the RLMP will be implemented.
- The Environmental Officer will inspect Marulan Creek within the project area quarterly, and following significant storm events, to monitor vegetation condition and identify erosion or channel stability issues.
- During operations, monitoring of implemented management measures is undertaken in accordance with the RLMP.

1.2.5 Riparian Area Management Plan Jaorimin Creek Catchment

The Riparian Area Management Plan for Jaorimin Creek (Umwelt 2018b) outlines measures to mitigate impacts to riparian areas during construction and operation of Lynwood Quarry. The active quarry area and several dams are located within the catchment. Controls such as sediment devices, seeding and revegetation of disturbed areas, monitoring, and restriction of work areas are implemented to limit impacts during development and operation.

The plan outlines the following rehabilitation objectives:

- The riparian corridor is fenced to exclude cattle, where required.
- Revegetation works have been undertaken along Jaorimin Creek south of the Main Southern Railway.
- Nest boxes along Jaorimin Creek have been installed, monitored, and maintained.
- Weed and feral animal infestations are managed, with a demonstrated reduction relative to pre-construction conditions.
- Monitoring indicates that natural regeneration is occurring.

1.3 Ecological and Rehabilitation Monitoring Requirements

Based on a review of previously approved documentation (Umwelt 2005, 2013, 2018a, 2018b), SLR developed an ecological and rehabilitation monitoring schedule for 2020-2030, as summarised in Table 1. The monitoring program will be updated periodically as rehabilitation progresses, including the addition of areas of active quarry operations that become available for rehabilitation (e.g. overburden emplacement areas and pits).

Table 1: Overview of Monitoring Program to 2030

Monitoring Method	Year 2020-2030 (✓ =survey required, ☑ =survey completed, ☒ survey not completed, additional surveys in red)										
	20	21	22	23	24	25	26	27	28	29	30
1. Nest Box Survey	☑	☑	☑	☑	☑	☑	✓	✓	✓	✓	
2. Retained Vegetation Monitoring*	☑			☑			✓			✓	
3. Hoary Sunray Monitoring	☑			☑	☑	☑	✓			✓	
4. Rehabilitation Monitoring - Amenity Bund#		☑	☑	☑	☑	☑	✓				
5. Rehabilitation Monitoring - HMA+		☑	☑	☑	☑	☑					
6. Rehabilitation Monitoring - BOA		☑	☑	☑							
7. Rehabilitation Monitoring - BOA (Revegetated)		☑	☑	☑	☑	☑	✓	✓	✓	✓	✓
8. Box-gum Woodland Monitoring (Retained)		☑	☑	☑	☑	☑	✓	✓	✓	✓	✓
9. Rehabilitation Monitoring - Creek Corridors^			☑	☑	☑	☑	✓	✓	✓	✓	✓

* After 2029, an assessment is required to determine whether the monitoring can transition to 10 yearly intervals.

Monitoring may cease after three years if vegetation meets completion criteria.

\+ After 2025, an assessment is required to determine whether additional planting is required; if so, monitoring of HMA rehabilitation should be extended.

^ Monitor annually for 10 years from planting, unless completion criteria are met sooner.

The surveys for each monitoring method are detailed in Section 2.0 and include:

1 **Nest Box Usage and Maintenance Survey**

A usage and maintenance survey of 50 nest boxes was undertaken annually for five years and completed in 2024. An additional 100 nest boxes were inspected in 2025, commencing a five-year monitoring program.

2 **Vegetation and Fauna Monitoring**

Monitoring at four locations within retained vegetation, including plots surveyed in accordance with the Biodiversity Assessment Method (BAM), and fauna surveys conducted at three yearly intervals until at least 2029. Fauna surveys include diurnal surveys for reptiles, amphibians and birds, as well as spotlighting, ultrasonic bat call detection, and infrared camera monitoring.

3 **Hoary Sunray Population Estimates**

Population estimates are obtained by counting *Leucochrysum albicans* var. *tricolor* individuals within ten 4 m² plots at designated locations at three yearly intervals in

perpetuity. Due to declining plant numbers within the plots, additional parallel traverse surveys were undertaken in 2024/2025.

4 **BAM Plot Data Collection - Amenity Bund**

BAM plot data are collected at one location on the amenity bund annually for three years or until completion criteria are met. Additional surveys were undertaken in 2024/2025 as completion criteria had not been achieved.

5 **BAM Plot Data Collection - Northern Habitat Management Area**

BAM plot data are collected at two locations within the northern HMA annually for five years.

6 **BAM Plot Data Collection - Biodiversity Offset Area**

BAM plot data are collected at one location within the BOA annually for three years.

7 **BAM Plot Data Collection - Regeneration Area (BOA)**

BAM plot data are collected at one location within the regeneration portion of the BOA annually in perpetuity.

8 **BAM Plot Data Collection - Box-Gum Woodland**

BAM plot data are collected at two locations within the retained Box-Gum Woodland annually in perpetuity.

9 **BAM Plot Data Collection - Core Riparian Corridors**

BAM plot data are collected at two locations within the core riparian corridors annually for ten years.

Survey locations are shown in Figure 4 and Figure 5.

1.4 Objectives

The purpose of the Lynwood ecological monitoring program is to monitor ecological values within rehabilitation areas and retained vegetation across the site, and to demonstrate achievement of relevant objectives outlined in the Ecological Assessment (Umwelt 2005), the Box-Gum Woodland Management Plan (Umwelt 2013), and the RLMP (Umwelt 2018a).

The objectives of the 2025 ecological monitoring program are to:

- Determine the current condition of rehabilitation and retained vegetation areas by comparison with relevant benchmarks.
- Identify issues associated with the management of natural areas through opportunistic observations and provide recommendations to address these issues, particularly within the BOA.
- Assess nest box use by native fauna and identify required maintenance actions.
- Estimate the population of *Leucochrysum albicans* var. *tricolor* (Hoary Sunray) using parallel traverse surveys.

1.5 Climate Data

Temperature and rainfall data for the locality (sourced from the Goulburn Airport AWS station 070330; BOM 2026a) are presented in Figure 2 and Figure 3, respectively. The data indicate that, in the months leading up to the survey (July to December 2025), the locality experienced average to above average monthly maximum temperatures compared with

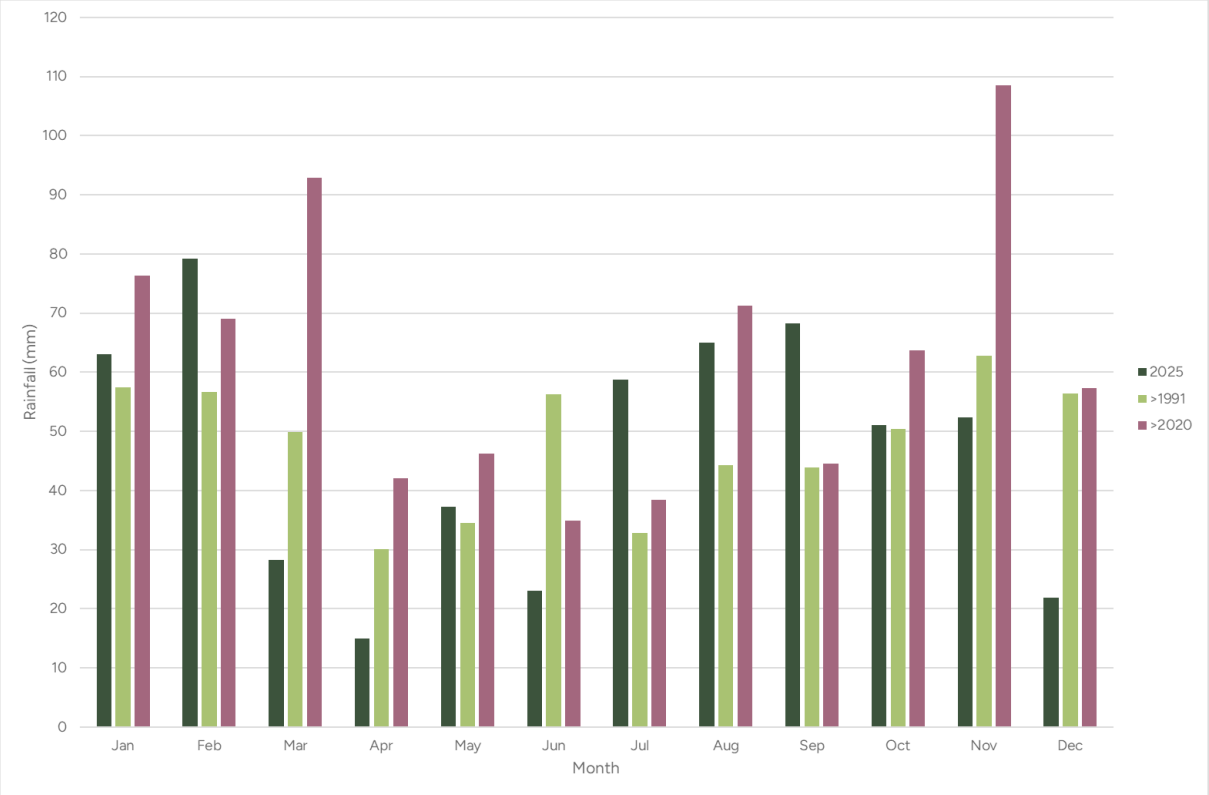
long-term averages (since 1991) and the monitoring period (since 2020). Rainfall was above average from July to September, and average to below average from October to December.

The temperature and rainfall patterns observed within the locality are generally consistent with those reported by BOM (2026b) for NSW in 2025, as summarised below:

- Mean maximum temperatures in 2025 were above to very much above average across the state.
- New South Wales' area-averaged mean maximum temperature was 25.7 °C, 1.80°C above the 1961-1990 average and represents the seventh warmest year on record since 1910.
- Rainfall totals in 2025 were above average for much of the coast, tending to very much above average in northern coastal areas.
- Rainfall totals were below to very much below average across southern and far western inland areas.
- New South Wales' area-averaged rainfall in 2025 was 532.6 mm, which is 4% below the 1961-1990 average.

Figure 2: Average Monthly Maximum Temperature (°C) for Goulburn (BOM 2026a)

Figure 3: Average Monthly Rainfall (mm) for Goulburn (BOM 2026a)



2.0 Methods

2.1 Vegetation Monitoring Methods

2.1.1 Vegetation Monitoring Plot Selection

Monitoring plots have been established using metal star pickets fitted with yellow caps and marked with the plot reference. Two star pickets were installed at each plot, positioned at the start and end of the midline (or 50 m transect) of each BAM plot.

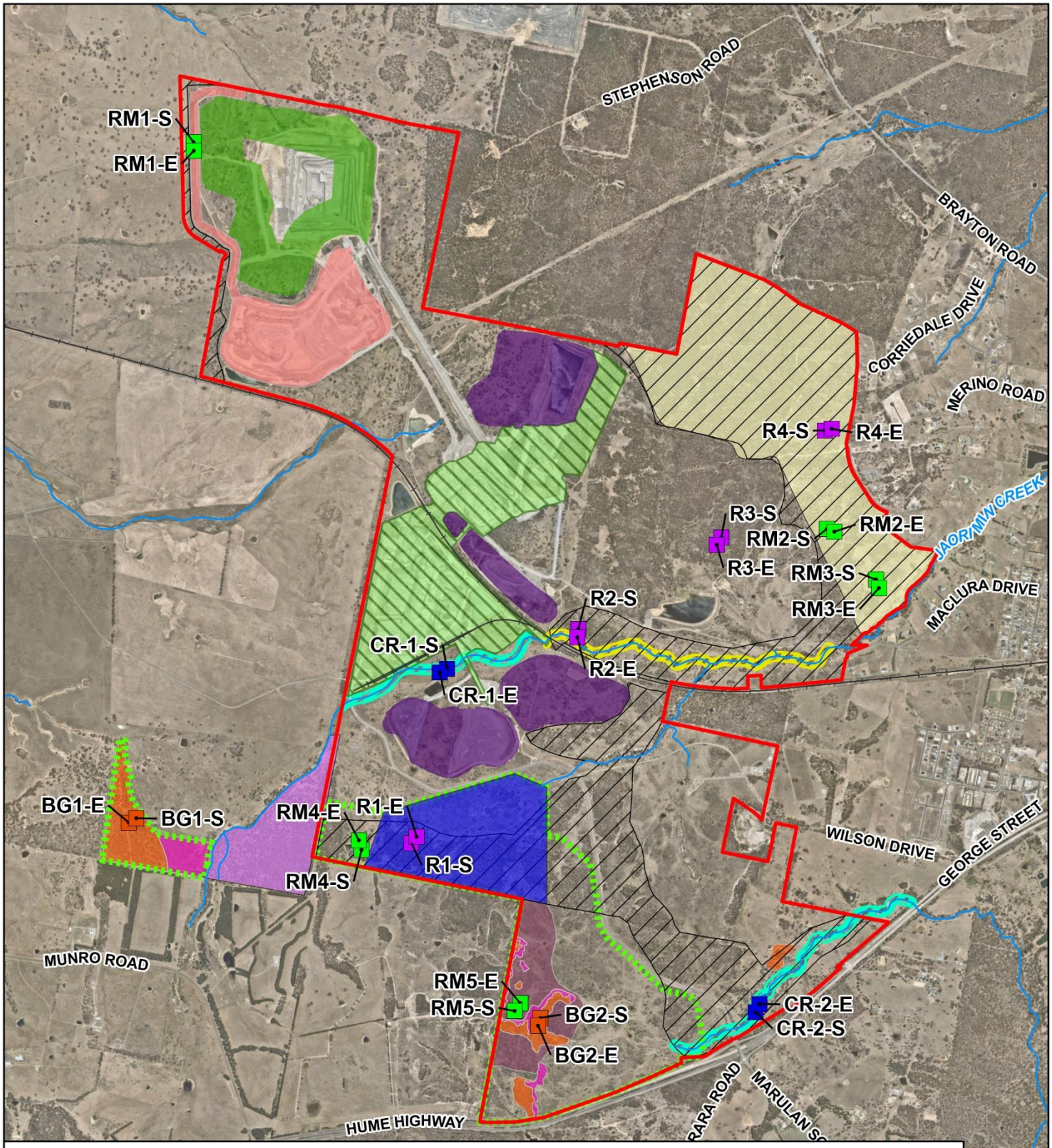
Plots were selected randomly in the field to monitor the following areas:

- Amenity Bund Rehabilitation Area - This approximately 8 ha revegetation area in the northwest of the site is directly impacted by quarry operations and requires prioritised rehabilitation under the RLMP. One permanent rehabilitation monitoring plot (RM1) was established in 2021 and monitored again in 2025. The plot orientation has been adjusted to ensure it remains within the planting area.
- Habitat Management Area (HMA) - This 130 ha area in the northeast of the site includes 25 ha requiring rehabilitation through assisted regeneration and planting under the RLMP. Two retained vegetation plots (R3 and R4) were established in 2020 and are monitored every three years; therefore, they were not monitored in 2025. In 2021, two rehabilitation monitoring plots (RM2 and RM3) were established within previously cleared and managed areas. These plots were monitored in 2025 and will continue to be monitored, as planting is recommended in this area.
- Cultural Heritage Management Area - Located directly south of the western emplacement area, this area is managed as retained native vegetation. One retained vegetation monitoring plot (R1) was established in 2020 and did not require monitoring in 2025.
- Jaorimin Creek Management Area - Located north of the Main Southern Railway, this area is managed as retained native vegetation. One retained vegetation monitoring plot (R2) was established in 2020 and did not require monitoring in 2025.
- Biodiversity Offset Area - This approximately 185 ha-area in the south of the site includes approximately 5.5 ha to be regenerated (via direct seeding and tube stock planting) under the RLMP. One permanent rehabilitation monitoring plot (RM4) was established in 2021. Monitoring of RM4 ceased in 2023.
- Box-Gum Woodland CEEC Regeneration - Within the BOA, an additional 22 ha is being regenerated in accordance with the Box-Gum Woodland Management Plan (Umwelt 2013). One permanent rehabilitation monitoring plot (RM5) was established in 2021 and monitored in 2025.
- Retained Box-Gum Woodland (non-revegetated area) - Additional areas in the south of the Lynwood Quarry site are to be monitored under the Box-Gum Woodland Management Plan (Umwelt 2013). Two permanent monitoring plots (BG1 and BG2) were established in 2021 and monitored in 2025.
- Core Riparian Corridors - The core riparian corridors of Jaorimin and Marulan Creeks form narrow bands through the north and south of the site, respectively. These areas are rehabilitated through stock exclusion and passive and active regeneration, as required. Two permanent monitoring plots (CR1 and CR2) were established in 2022 and monitored in 2025.

Locations and details of the monitoring plots, vegetation communities (DPE 2022), and management areas are provided in Table 2 and shown on Figure 4 and Figure 5.

Table 2: Monitoring Plot Location and Details

Management/ Rehabilitation Area	Plot	Transect Start Easting	Transect Start Northing	Transect End Easting	Transect End Northing	State Vegetation Map (DPE 2022)
Cultural Heritage Management Area	R1	771155.1	6154011	771125.2	6153975	PCT 3643 Bungonia Tableland Silvertop Ash -Stringybark Forest
Jaorimin Creek Management Area	R2	772059.7	6155132	772065.7	6155178	PCT 3373 Goulburn Tableland Box-Gum Grassy Forest
Habitat Management Area	R3	772844.6	6155654	772870.5	6155695	PCT 3486 Wollondilly-Shoalhaven Slopes Grassy Open Forest
	R4	773491.9	6156306	773453.6	6156296	PCT 3373 Goulburn Tableland Box-Gum Grassy Forest
Amenity Bund Rehabilitation Area	RM1	769899.6	6157918	769900.8	6157871	PCT 3376 Southern Tableland Grassy Box Woodland (prior to quarry development)
Habitat Management Area - Rehabilitation Portion	RM2	773464.8	6155743	773506.3	6155726	n/a
	RM3	773741.8	6155457	773757.6	6155409	n/a
Biodiversity Offset Area - Regeneration Portion	RM4	770845.1	6153936	770830.3	6153989	n/a
Biodiversity Offset Area - Box-Gum Woodland CEEC Regeneration	RM5	771706.9	6153029	771739.9	6153072	n/a
Retained Box-Gum Woodland (Non-Revegetated Area)	BG1	769577.1	6154113	769535.1	6154090	PCT 3373 Goulburn Tableland Box-Gum Grassy Forest
	BG2	771851.8	6152990	771838.8	6152946	PCT 3643 Bungonia Tableland Silvertop Ash -Stringybark Forest
Core Riparian Corridors	CR1	771326.2	6154954	771285.1	6154935	n/a
	CR2	773062.9	6153023	773084.5	6153068	PCT 3373 Goulburn Tableland Box-Gum Grassy Forest



LEGEND

- Site boundary (approx only)
- Box Gum Woodland Monitoring
- Rehabilitation Monitoring
- Vegetation Monitoring Plot
- Riparian Monitoring
- Railway
- Major Watercourse
- Assisted Natural Regeneration
- Biodiversity Offset Area
- Box Gum Woodland (CEEC)
- Box Gum Woodland (CEEC) Regeneration
- Box Gum Woodland Derived Native Grassland (CEEC)
- Existing Approved Core Riparian Corridor
- Existing Approved Cultural Heritage Management Zone
- Existing Approved Habitat Management Area
- Habitat Management Area
- Joarmin Creek Management Area
- Rehabilitated Area – Biodiversity Values or Grazing
- Rehabilitated Area – Grazing
- Rehabilitated Areas – Biodiversity Values
- Rehabilitation Area – Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)

0 0.5 1 km

Scale: 1:30,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 04-Mar-2026
Project Number: 630.031740

Data Source: NSW SS, 2020
Aerial imagery supplied by Nearmap (January, 2026)
Conservation and Management Areas digitised from (Umwelt, 2018)

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MONITORING SITES

FIGURE 4

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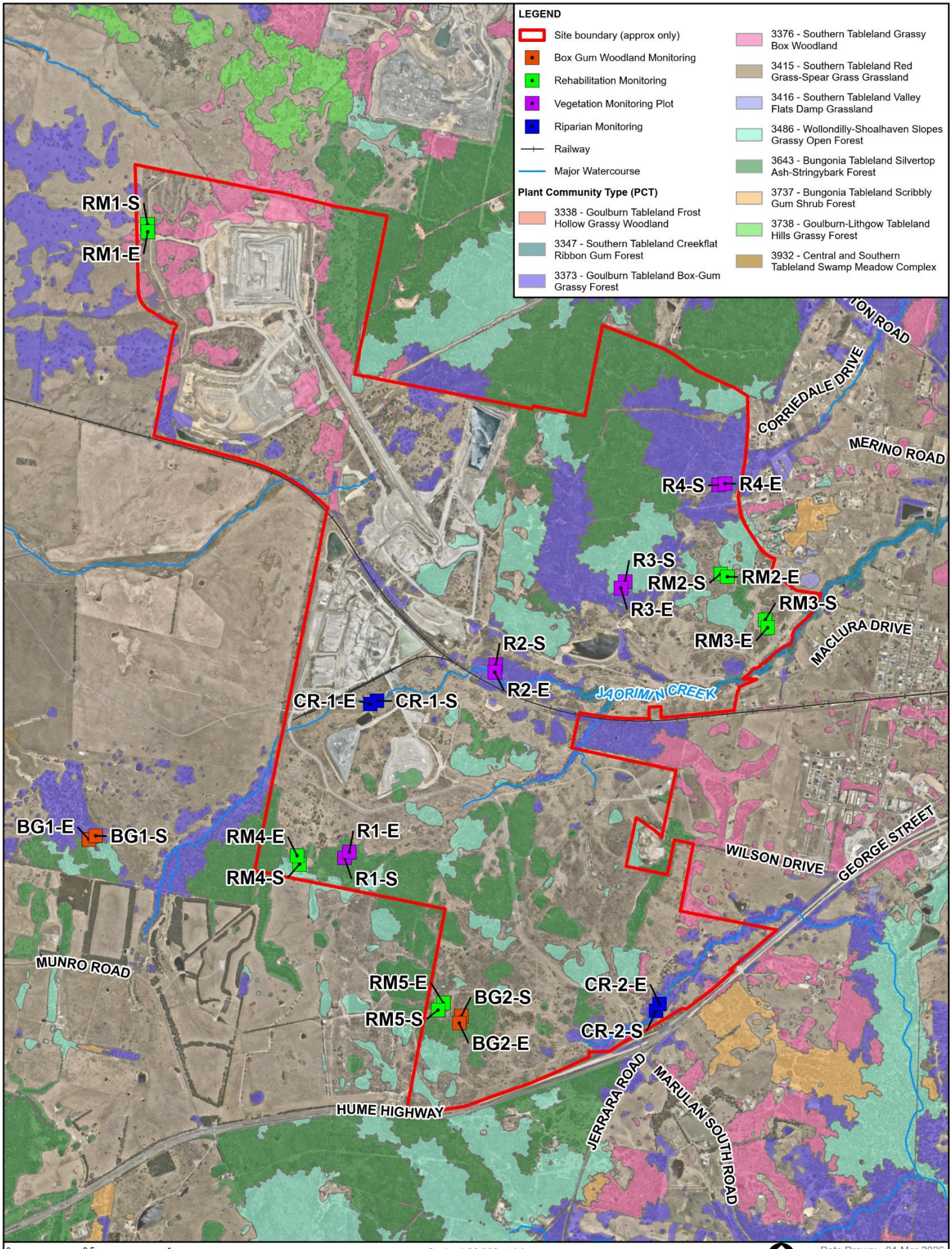

Data Source: NSW SS, 2020
Aerial imagery supplied by Nearmap (January, 2026)
State Vegetation Type Map (Version C2.0.M2.0, NSW DPE 2023)

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PLANT COMMUNITY TYPES

FIGURE 5

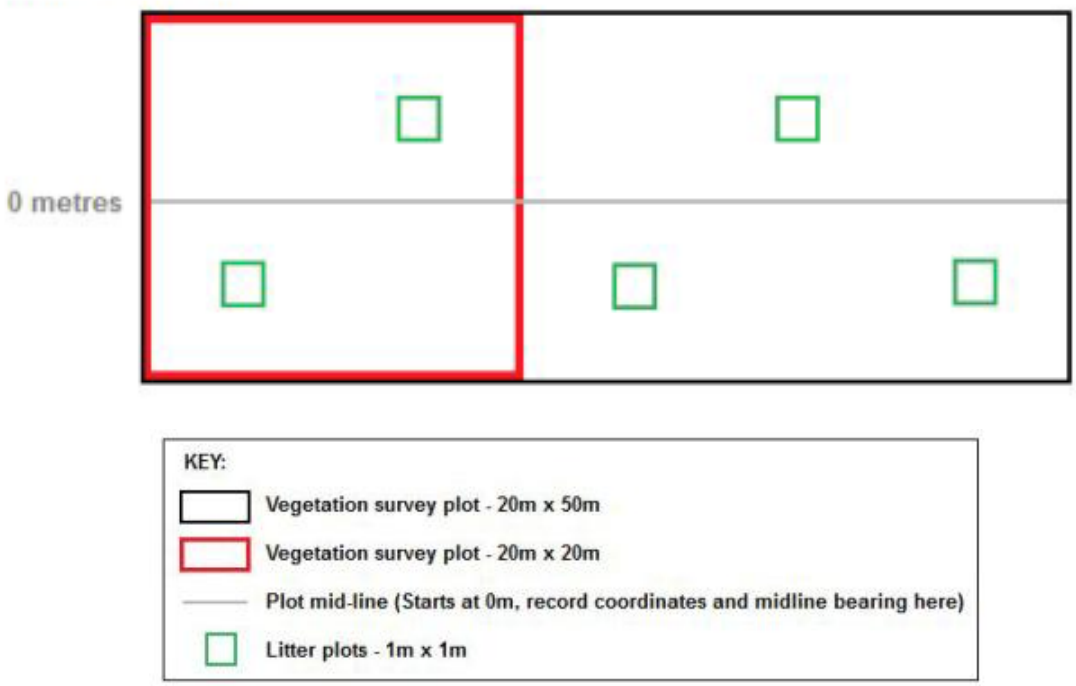
Path: \\au.slr.local\corporate\Projects-SLR\630-SrvNTL\630-NTL\630.031740.00001 Lynwood Ecology and Rehab Monito\06 SLR Data\01 GIS\GIS\630031740_LynwoodEcologicalMonitoring\630031740_LynwoodEcologicalMonitoring.aprx\630031740_F05_Vegetation

2.1.2 Vegetation Survey Technique

Flora monitoring was undertaken during the spring survey period at eight of the permanent monitoring plots described above, following the methods prescribed in the NSW Biodiversity Assessment Method (BAM) (DPIE 2020a).

The survey included a 20 m by 20 m floristic plot to assess species composition and structure (i.e. percentage cover and abundance), and a 20 m by 50 m plot to assess vegetation function. Function attributes recorded under the BAM include tree stem size, counts of hollow-bearing trees, and measurement of coarse woody debris and ground cover components (litter, bare ground, cryptogam, and rock). Ground cover attributes were recorded using five 1 m by 1 m quadrats positioned along the midline of each plot (see Figure 6).

Figure 6: BAM Plot Layout



The BAM provides a framework for assessing vegetation condition and structural changes over time, as well as enabling comparison with areas of retained vegetation. All PCTs listed in the NSW BioNet Vegetation Classification database include benchmark values for these attributes, which allow comparison with collected plot data. Due to its widespread application in NSW, this method provides a consistent and replicable approach to assessing vegetation condition.

Vegetation at each BAM plot was assigned to a PCT (where applicable), by comparing previous vegetation mapping and floristic data (Umwelt 2005), together with current floristic composition data, to PCTs within the BioNet Vegetation Classification database. The database was filtered to the Southern Highland IBRA Region and Bungonia Subregion, followed by detailed comparison of floristic composition to determine the most appropriate classification.

The BAM survey method collects floristic and structural data to generate a Vegetation Integrity (VI) score for each vegetation zone. Each BAM plot within a single PCT is compared with NSW BioNet benchmark values for these attributes.

2.2 Nest Box Monitoring Methods

A total of 100 nest boxes were inspected during the 2025 winter monitoring event (HMA11-HMA19), with locations shown in Figure 7. Of these, 80 were constructed from plywood and designed to support native fauna species, including possums, gliders, parrots, owlet nightjars and microbats. The remaining 20 comprised salvaged log hollows capped at one end and secured to trees using bindings.

Nine of the nest boxes have been monitored since 2023, and one additional box was identified and inspected during the 2024 monitoring event. The remaining 90 boxes inspected in 2025 had not been previously monitored.

An additional 50 nest boxes, monitored since 2020, have fulfilled the monitoring requirements outlined in the Ecological Assessment, Box-Gum Woodland Management Plan, and RLMP. These boxes were therefore not included in the 2025 inspection.

The 2025 nest box monitoring was conducted by two qualified SLR ecologists using a non-invasive remote camera inspection method. The following observations were recorded:

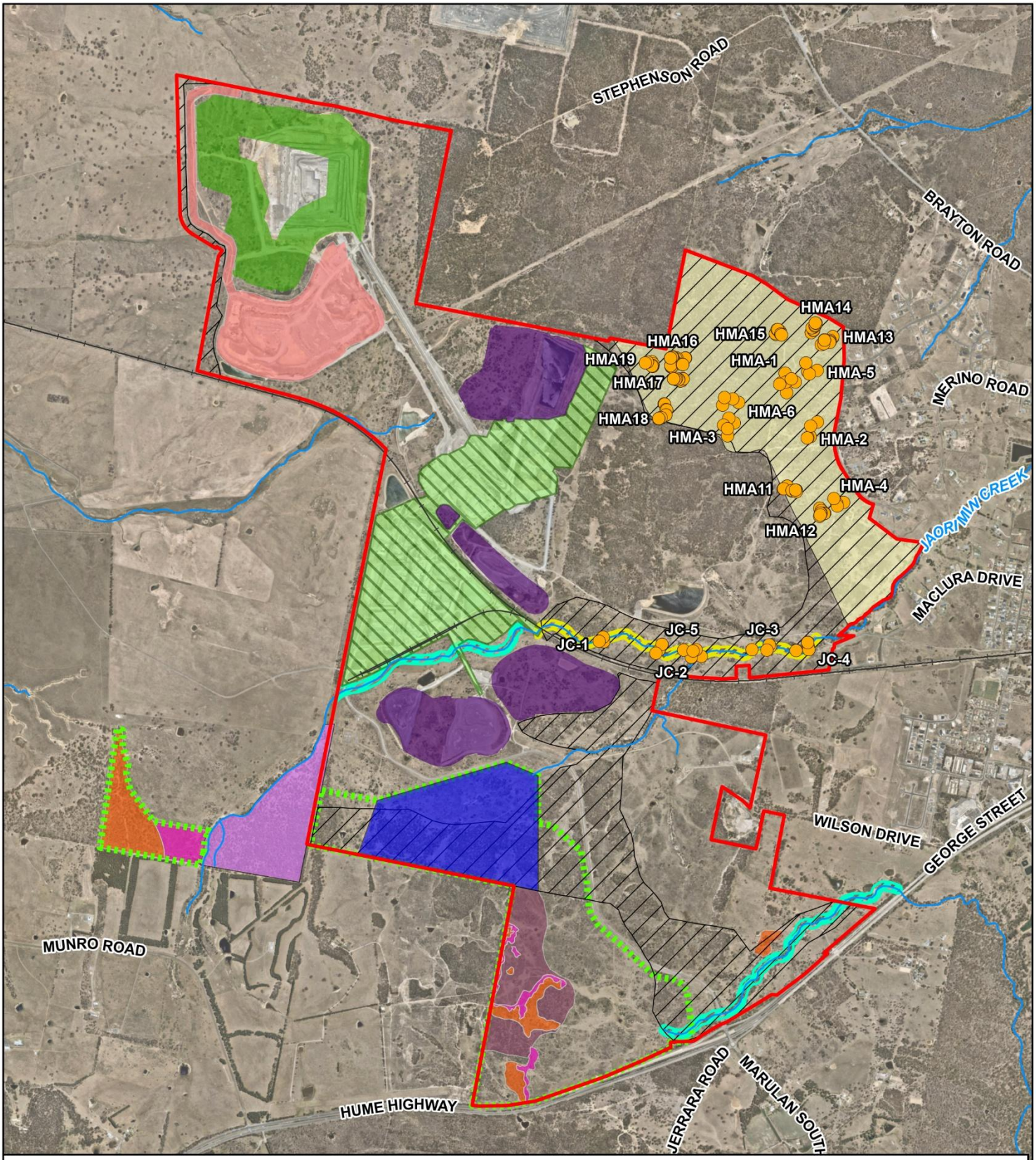
- Native fauna occupancy
- Presence of nests, eggs, or young
- Indirect signs of usage (e.g. scats, fur, feathers, egg fragments, nest material)
- Evidence of pest species (e.g. bees and exotic birds such as Indian Mynas)
- Nest box condition and maintenance requirements.

2.3 Hoary Sunray Monitoring Methods

Hoary Sunray surveys targeted areas of previously identified habitat polygons as shown in Figure 8.

Following the 2024 monitoring program, which surveyed smaller patches (HS1, HS2, HS3, HS6, HS7, HS8, HS10, and HS11), the larger patches (HS4, HS5 and HS9) were surveyed in 2025 using parallel traverse searches (DPIE 2020b). This method included mapping individual plants and small patches.

Eleven *Leucochrysum albicans* var. *tricolor* (Hoary Sunray) monitoring plots have been established, as shown in Figure 8. Plot-based monitoring was undertaken in 2024 and was therefore not repeated during the 2025 monitoring event.



LEGEND

- Site boundary (approx only)
- Location of Nest Box
- Railway
- Major Watercourse
- Assisted Natural Regeneration
- Biodiversity Offset Area
- Box Gum Woodland (CEEC)
- Box Gum Woodland (CEEC) Regeneration
- Box Gum Woodland Derived Native Grassland (CEEC)
- Existing Approved Core Riparian Corridor
- Existing Approved Cultural Heritage Management Zone
- Existing Approved Habitat Management Area
- Habitat Management Area
- Joarmin Creek Management Area
- Rehabilitated Area – Biodiversity Values or Grazing
- Rehabilitated Area – Grazing
- Rehabilitated Areas – Biodiversity Values
- Rehabilitation Area – Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)

0 0.5 1 km

Scale: 1:30,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 04-Mar-2026
Project Number: 630.031740

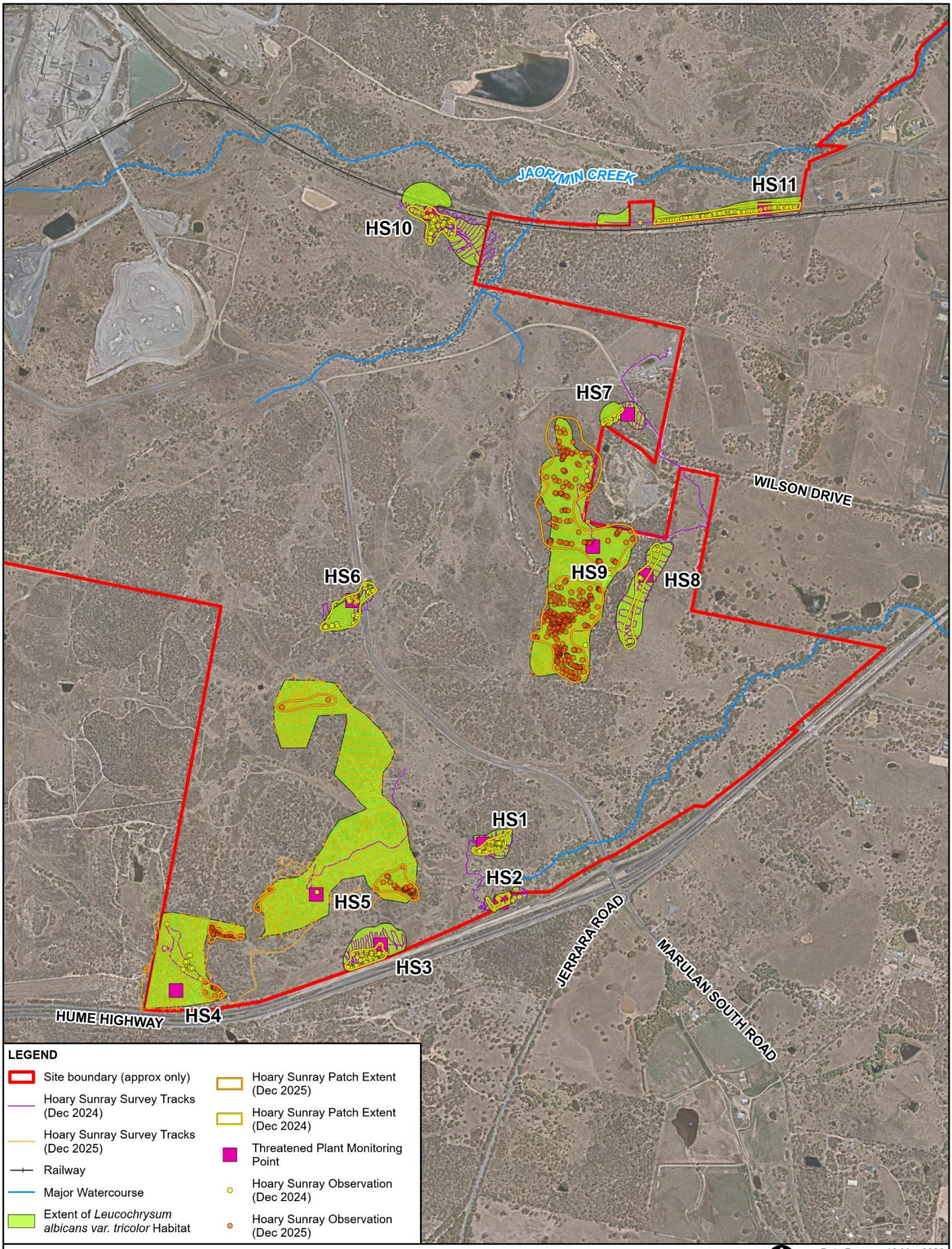
Data Source: NSW SS, 2020
Aerial imagery supplied by Nearmap (January, 2026)
Conservation and Management Areas digitised from (Umwelt, 2018)

SLR

NEST BOX LOCATIONS

FIGURE 7

Path: \\au.slr.local\corporate\Projects-SLR\630-SrvNTL\630-NTL\630.031740.00001 Lynwood Ecology and Rehab Monito\06 SLR Data\01 GIS\GIS\630031740_LynwoodEcologicalMonitoring\630031740_LynwoodEcologicalMonitoring.aprx\630031740_F07_NestBoxLocations



Scale: 1:15,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 16-Mar-2026
Project Number: 630.031740

Data Source: NSW SS, 2020
Aerial imagery supplied by Nearmap (January, 2026)

SLR

HOARY SUNRAY MONITORING SITES

FIGURE 8

Path: \\au.slr.local\corporate\Projects-SLR\630-SrvNTL\630-NTL\630.031740.00001 Lynwood Ecology and Rehab Monito\06 SLR Data\01 GIS\GIS\630031740_LynwoodEcologicalMonitoring\630031740_LynwoodEcologicalMonitoring.aprx\630031740_F08_HoarySunrayMonitoring

2.4 Rehabilitation Inspection

2.4.1 General Survey

The following observations were recorded within each BAM plot, as required by the RLMP:

- Evidence of natural regeneration
- The extent of vegetative cover, species diversity, and any requirements for additional revegetation
- General health and condition of vegetation.
- Occurrence of weed species and associated requirements for weed control
- Presence of threatened or otherwise significant species
- Evidence of feral animals and the need for control measures
- Signs of erosion and the need for remediation
- Fire management considerations
- Signs of disturbance from animals or human activity
- Evidence of site management (e.g. fencing and weed control)
- Effectiveness of management measures implemented following previous monitoring inspections
- Opportunistic fauna observations

2.4.2 Biodiversity Offset Area Survey

A general inspection of the BOA was also undertaken opportunistically while traversing the site between monitoring plot locations. The survey included assessment of erosion, weed and pest species presence, and observations of planting, natural regeneration, and general site management.

2.5 Survey Details

The 2025 ecological and rehabilitation monitoring program included winter and spring surveys, as summarised in Table 3.

Table 3: Details of the 2025 Ecological and Rehabilitation Monitoring

Date and Time	Survey Technique	Weather Conditions*
14 July 2025 (9 am + 24 hrs	Nest box inspections	Temperature: 4.9°C (min), 11.0°C (max); rainfall: 1.2 mm (no rain while onsite); light wind; moon phase: third quarter to new moon; sunrise: 7:06 am; sunset: 5:07 pm
15 July 2025 (9 am + 24 hrs	Nest box inspections	Temperature: -2.8°C (min), 8.5°C (max); rainfall: 1.2 mm (no rain while onsite); light wind; moon phase: third quarter to new moon; sunrise: 7:06 am; sunset: 5:08 pm
3 December 2025 (9 am + 24 hrs	Vegetation survey (BAM plots)	Temperature: 2°C (min), 25°C (max); rainfall: 0 mm; light wind; moon phase: first quarter to full moon; sunrise 5:37 am; sunset 7:52 pm

Date and Time	Survey Technique	Weather Conditions*
4 December 2025 (9 am + 24 hrs)	Vegetation survey (BAM plots), Hoary Sunray survey	Temperature: 4.6°C (min), 29°C (max); rainfall: 0 mm; light wind; moon phase: first quarter to full moon; sunrise 5:37 am; sunset 7:53 pm
5 December 2025 (9 am + 24 hrs	Hoary Sunray survey	Temperature: 6.4°C (min), 33.4°C (max); rainfall: 0 mm; light wind; moon phase: full moon; sunrise 5:37 am; sunset 7:54 pm
* Weather data sourced from BOM (2026a) Goulburn Airport station 070330 (approximately 20 km south-west of the site) and timeanddate.com (Sydney 2025).		

2.5.1 Survey Limitations

Survey efficacy is influenced by a several factors. For this type of survey, limitations typically arise from the use of a single, short duration assessment that does not capture seasonal variation. Given the limited time spent onsite, detection of certain species may be influenced by:

- Seasonal migration (particularly for migratory birds)
- Seasonal flowering periods (e.g. cryptic plant species may not be detectable outside their flowering period)
- Seasonal availability of resources, such as blossoms for some fauna
- Weather conditions during the survey period, noting that activity cycles for some species are influenced by specific weather patterns (e.g. reptiles and frogs may be inactive during cold conditions)
- Species life cycles, including activity peaks associated with breeding

2.5.2 SLR Permits and Licences

The SLR ecology team operates under a Scientific Licence (Licence No. SL 00176), issued under the BC Act, which authorises field staff to handle plants and animals protected under the BC Act and the *National Parks and Wildlife Act 1974*.

The team also operates under an Animal Research Authority issued by the Secretary of the NSW Animal Care and Ethics Committee, which permits the trapping of animals in NSW for approved research purposes.

2.6 Staff Roles and Qualifications

The roles and qualifications of personnel involved in preparing this report are summarised in Table 4.

Table 4: Staff Roles and Qualifications

Staff Name/Title	Qualifications and Training	Role
Jeremy Pepper Technical Director	Bachelor of Science (Hons Class I), University of NSW, 1996 Certificate II Bushland Regeneration, TAFE NSW Certificate III Horticulture (Arboriculture), TAFE NSW BAM accredited assessor (BAAS17104)	Project Director
Trevor Meers Principal Botanist	Doctor of Philosophy (Restoration Ecology), University of Melbourne, 2007	Report review

Staff Name/Title	Qualifications and Training	Role
	Bachelor of Applied Science (Honours) in Natural Resource Management, Deakin University, 2002 BAM accredited assessor (BAAS18119)	
Fiona Iolini Associate Ecologist	Bachelor of Environmental Science and Management, University of Newcastle, 2007 Certificate of Native Plant Identification, University of Sydney, 2008 Certificate III Conservation and Land Management, TAFE NSW, 2015 BAM accredited assessor (BAAS19042)	Project Manager, Spring field survey, report preparation
Joshua Drane Senior Ecologist	Bachelor of Environmental Science, Australian Catholic University BAM accredited assessor (BAAS25022)	Winter field survey
Vander Bertoldo Project Ecologist	Bachelor of Biological Sciences (Honours), UNESC University, 2013 Diploma in Business and Management, Lexis School, 2019 Master of Marine and Environmental Science and Management, Southern Cross University, 2022	Spring field survey
Elise Newberry Project Ecologist	Bachelor of Environmental Biotechnology, University of Technology Sydney	Winter field survey
James Hugo Senior GIS technician	Master of Environmental Management and Sustainability, University of Newcastle, 2020 Bachelor of Science (Honours), University of Newcastle, 2016	GIS data management and figure preparation

3.0 Results

3.1 Vegetation Monitoring

3.1.1 PCT Floristic Assessment

An assessment of the number of floristic species recorded at each monitoring plot that corresponds to mapped Plant Community Types (PCTs) (Table 5) indicates that most plots are generally consistent with the NSW State Vegetation Type (SVT) mapping (DPE 2022).

However, floristic composition at plots BG1, BG2 and CR2 aligns more closely with PCT 3376 Southern Tableland Grassy Box Woodland than with the mapped SVT classification. Vegetation recorded at plots without SVT mapping aligns with PCT 3376 (RM2, RM3, CR1) or PCT 3373 (RM5).

According to the PCT descriptions in the BioNet Vegetation Classification database (DCCEEW 2025a; Appendix A), these PCTs typically contain the following characteristic species:

- PCT 3373 - Goulburn Tableland Box-Gum Grassy Forest: *Eucalyptus melliodora*, *E. macrorhyncha*, *E. blakelyi*, *E. dives*, *Lissianthe strigosa*, *Pimelea curviflora*, *Melichrus urceolatus*, *Hibbertia obtusifolia*, *Themeda triandra*, *Microleana stipoides*, *Poa sieberiana*, *Elymus scaber*, *Aristida ramosa*, *Lomandra filiformis*, *Lomandra multiflora*, *Goodenia hederacea*, *Hydrocotyle laxiflora*, *Oxalis perennans*, *Chrysocephalum apiculatum*, *Tricoryne elatior*, *Gonocarpus tetragynus*, *Hypericum gramineum*.
- PCT 3376 - Southern Tableland Grassy Box Woodland: *Eucalyptus melliodora* or *E. bridgesiana*, *E. blakelyi*, *M. urceolatus*, *L. strigosa*, *Acacia* spp., *Hydrocotyle laxiflora*, *Austrostipa scabra*, *Lomandra filiformis*, *Microleana stipoides*, and *E. scaber*.

PCT 3373 and PCT 3376 correspond to the nationally and state-listed CEEC White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (TSC 2020; DCCEEW 2025b).

A complete list of species associated with each PCT is provided in Appendix A. Dominant species recorded at each of the monitoring plot are presented in Table 6. For the purposes of this assessment, dominant species are defined as the three species within each structural layer with the highest cover scores in 2025.

Table 5: PCT Floristic Assessment

Plot	Mapped PCT (SVT)	PCT code with most matching flora species per year and the total number of matching species						Final PCT match
		2020	2021	2022	2023	2024	2025	
RM1	3376	n/a	3376 (3)	3373, 3376 (1)	3376 (11)	3376 (11)	3376 (14)	3376
RM2	n/a	n/a	3376 (12)	3376 (13)	3373, 3376 (14)	3373, 3376 (16)	3376 (17)	3376
RM3	n/a	n/a	3376 (10)	3373, 3376 (9)	3376 (5)	3373, 3376 (6)	3376 (5)	3376
RM5	n/a	n/a	3373, 3376 (12)	3373 (11)	3373 (8)	3373 (10)	3373 (9)	3373
BG1	3373	n/a	3376 (20)	3376 (20)	3376 (24)	3376 (20)	3376 (21)	3376
BG2	3643	n/a	3373, 3376 (19)	3376 (17)	3373, 3376 (13)	3373, 3376, 3643 (15)	3376 (15)	3376
CR1	n/a	n/a	n/a	3373, 3376 (6)	3376 (5)	3376 (6)	3373, 3376 (6)	3376
CR2	3373	n/a	n/a	3373 (13)	3373 (14)	3376 (9)	3373, 3376 (13)	3376

Table 6: Dominant Native Plant Species at Monitoring Plots in 2025

Plot (PCT)	Tree	Shrub	Grass and Grass-like	Forb	Fern	Other
RM1 (3376)	*Acacia melanoxylon*, *Eucalyptus bridgesiana*, *Acacia dawsonii*, *Eucalyptus blakelyi*, *Eucalyptus sieberi*	*Acacia mearnsii*, *Acacia ulicifolia*	*Chloris ventricosa*, *Austostipa scabra*, *Cymbopogon refractus*, *Cynodon dactylon*	*Geranium solanderi*, *Erodium crinitum*, *Wahlenbergia gracilis*	Nil	Nil
RM2 (3376)	*Eucalyptus melliodora*	*Cassinia sifton*, *Astroloma humifusum*, *Cassinia aculeata*, *Kunzea parvifolia*	*Austostipa densiflora*, *Austostipa pubescens*, *Rytidosperma fulvum*	*Gonocarpus tetragynus*, *Goodenia hederacea*, *Euchiton involucratus*	Nil	Nil
RM3 (3376)	Nil	*Cassinia sifton*	*Juncus usitatus*, *Microlaena stipoides*, *Rytidosperma fulvum*	Nil	Nil	Nil

Plot (PCT)	Tree	Shrub	Grass and Grass-like	Forb	Fern	Other
RM5 (3373)	Nil	*Cassinia sifton*, *Kunzea parvifolia*	*Microlaena stipoides*, *Juncus usitatus*	*Hydrocotyle sibthorpioides*, *Euchiton involucratus*, *Microtis unifolia*, *Wahlenbergia gracilis*	*C. sieberi*	Nil
BG1 (3376)	*Eucalyptus bridgesiana*, *Eucalyptus blakelyi*, *Eucalyptus melliodora*	*Cassinia sifton*, *Lissanthe strigosa*	*Microlaena stipoides*, *Austostipa densiflora A Austostipa scabra*, *Lomandra multiflora*, *Themeda triandra*	*Hydrocotyle sibthorpioides*, *Goodenia hederacea*, *Arthrodpodium fimbriatum*, *Opercularia diphylla*, *Wahlenbergia communis*	Nil	Nil
BG2 (3376)	*Eucalyptus blakelyi, Eucalyptus agglomerate*, *Allocasuarina littoralis*, *Eucalyptus macrorhyncha*	*Cassinia sifton*, *Cassinia aculeata*	*Austostipa scabra*, *Juncus usitatus*, *Juncus vaginatus*	*Gonocarpus tetragynus*, *Goodenia hederacea*, *Microtis unifolia*, *Veronica plebeia*	Nil	Nil
CR1 (3376)	*A. parramattensis*	*Cassinia sifton*, *Lissanthe strigosa*	*Juncus usitatus*, *R. racemosum*	*Geranium solanderi*	Nil	Nil
CR2 (3376)	*Eucalyptus blakelyi*, *Acacia parramattensis*, *Allocasuarina littoralis*	*Cassinia sifton*, *Olearia viscidula*	*Microlaena stipoides*, *Rytidosperma racemosum*, *Austostipa scabra*	*Hydrocotyle sibthorpioides*, *Veronoica plebeia*, *Senecio linearifolius*	Nil	*A. miquelii*

*Where multiple species share the highest cover score, more than three may be listed. Where fewer than three species were recorded, all observed species are included.

3.1.2 Rehabilitation Monitoring Plots

3.1.2.1 Composition and Structure

The rehabilitation monitoring plots were assessed against benchmark values for species richness and cover, as presented in Figure 9 and Figure 10, respectively. Tables of the analysed data used to generate these figures are provided in Appendix B.

Across the monitoring period, tree species richness ranged from 0 to 5 and remained below benchmark values at all plots. Tree richness has generally remained stable or increased slightly, with no declines observed. Tree cover ranged from 0 to 13% and remained below benchmark values at all plots. Cover remained negligible or declined slightly at most sites, except RM1, where it increased in response to planting efforts.

Shrub species richness ranged from 0 to 4 and remained below benchmark values. Richness increased or remained stable at most plots, except at RM2, where a slight decline was observed between 2021 and 2025. Shrub cover ranged from 0 to 45.2% and increased substantially across all plots over the monitoring period, with most plots now within or exceeding benchmark levels.

Grass and grass-like species richness ranged from 0 to 8 and remained below benchmark values at all plots. Richness increased slightly at most plots, except at RM3 and RM5, where minor declines were recorded. Grass and grass-like cover ranged from 0 to 55%, with most plots remaining below benchmark values or declining to below benchmark levels in 2025.

Forb species richness ranged from 1 to 8 and remained below benchmark values across all plots. Forb richness remained relatively stable over time, except at RM3, where no forb species were recorded in 2025. Forb cover ranged from 0 to 30%, with most plots below benchmark values, except RM2.

Fern species richness ranged from 0 to 1 and was at or slightly below benchmark values across all plots, with only minor variation (±1 species) over the monitoring period. Fern cover ranged from 0 to 2%, meeting or exceeding the benchmark of zero.

Species richness and cover for the ‘other’ growth form remained nil across the monitoring period, consistent with the benchmark range of 0 to 1.

Overall, native species richness and cover increased at RM1 and RM2, indicating progressive regeneration. Species richness declined slightly at RM3 and RM5, although total cover increased at RM3.

Most plots exhibited substantial increases in shrub layer cover, driven by the proliferation of *Cassinia sifton* (Sifton Bush). This increase appears to have reduced the relative abundance of grasses and forbs. Variation in results between monitoring years may also reflect site management activities, including slashing.

Figure 9: Native Species Richness for Rehabilitation Monitoring Plots

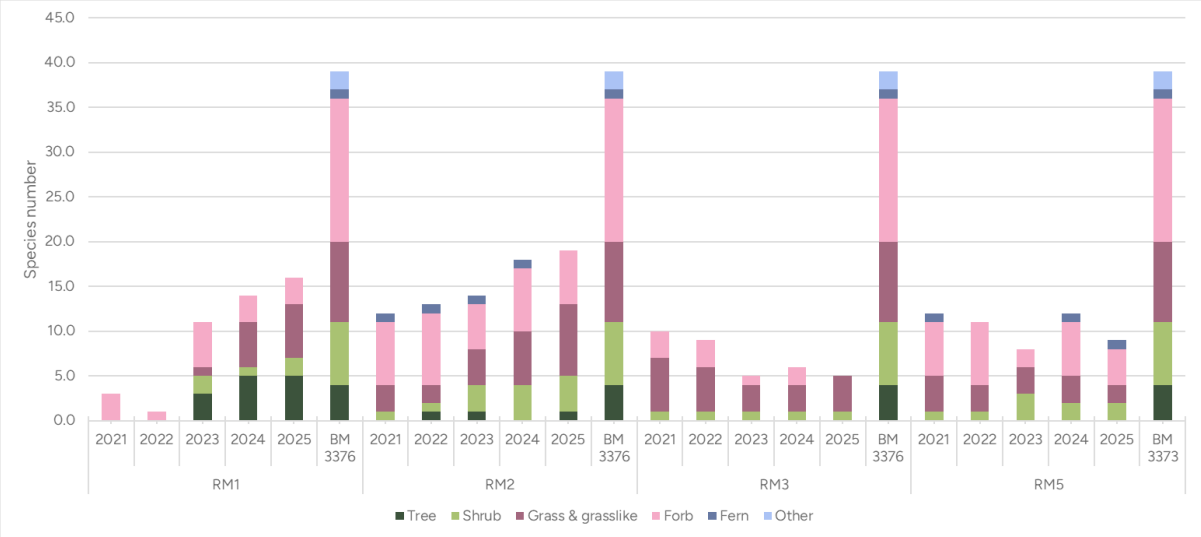
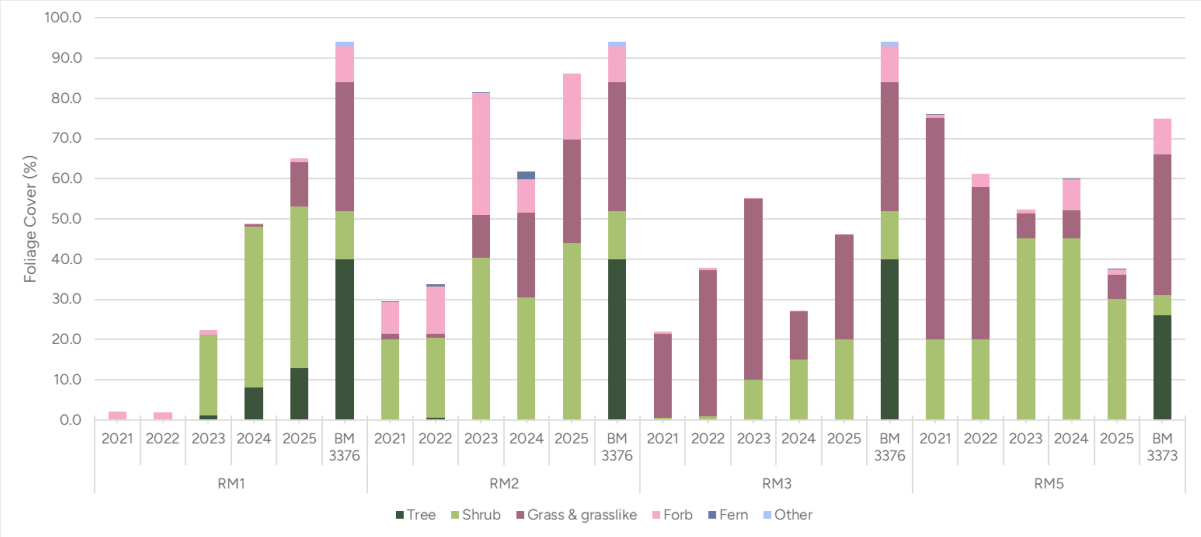


Figure 10: Native Species Cover for Rehabilitation Monitoring Plots



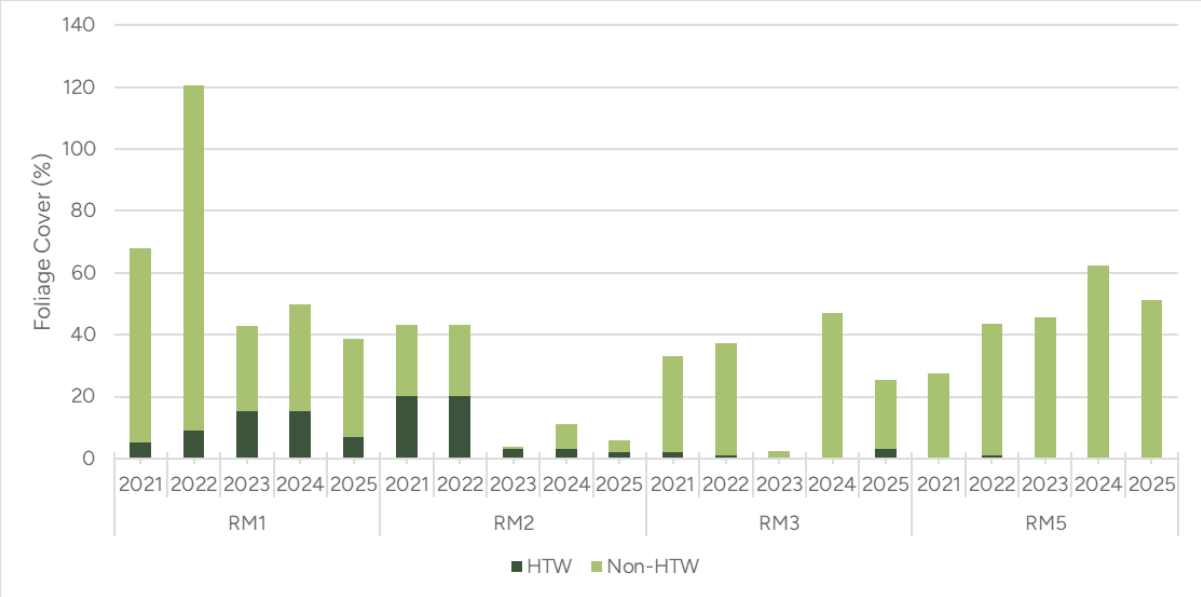
3.1.2.2 Function

Exotic species cover within the rehabilitation monitoring plots is presented in Figure 11, showing the cover of Hight Threat Weed (HTW) and non-HTW species.

Across the monitoring period, HTW cover ranged from 0 to 20.3%, with the highest HTW value recorded at RM2 in 2022. Non-HTW cover ranged from 0.7 to 111.2%.

Total weed cover was highest at RM1 in 2022, but decreased in 2023, largely due to plot relocation. In 2025, weed cover declined at RM1, RM2, and RM3, with RM2 showing the greatest reduction and approaching negligible weed cover.

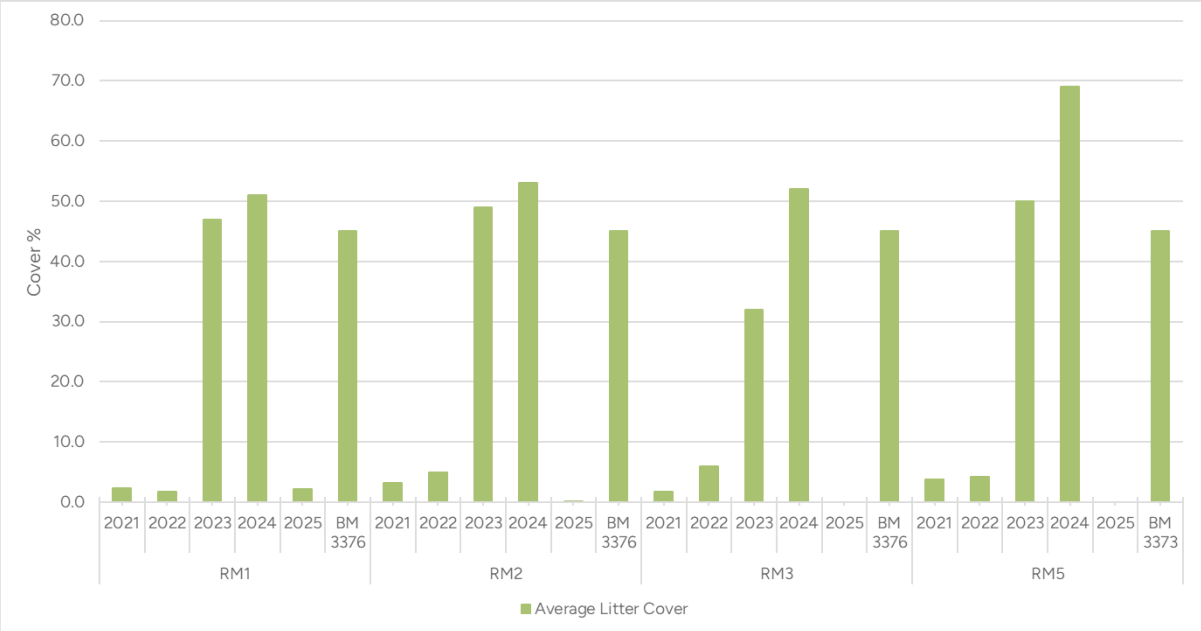
Figure 11: Exotic Species Cover for Rehabilitation Monitoring Plots



The rehabilitation monitoring plots were assessed against benchmark values for litter cover (Figure 12). Litter cover ranged from 0 to 69% over the monitoring period.

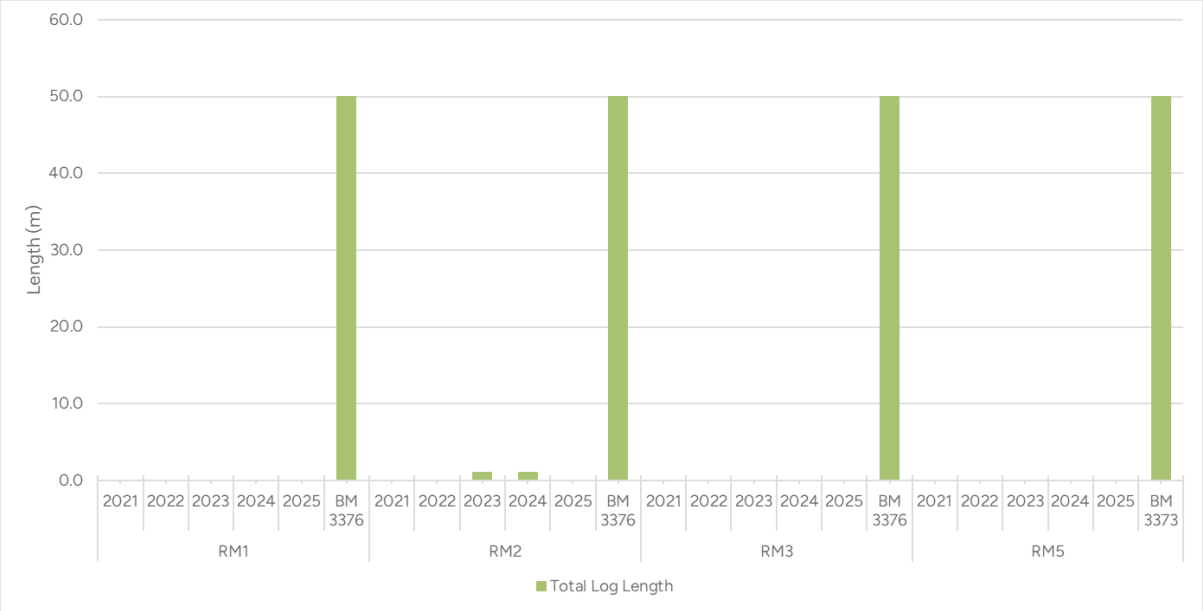
The data indicate that litter cover increased across all plots between 2021 and 2024, however, however a substantial decline was observed in 2025, with values falling well below benchmark levels.

Figure 12: Litter Cover for Rehabilitation Monitoring Plots



The rehabilitation monitoring plots were assessed against benchmark values for total log length (Figure 13). Total log length ranged from 0 to 1 m across the monitoring period and remained consistently below benchmark values at all plots.

Figure 13: Total Log Length for Rehabilitation Monitoring Plots

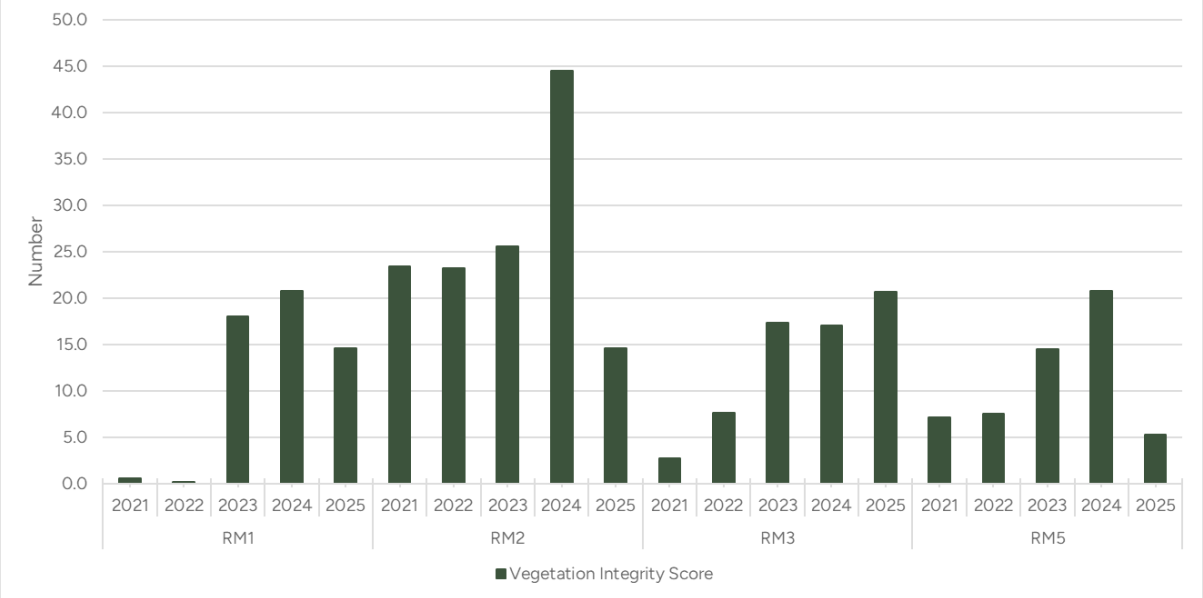


3.1.2.3 Vegetation Integrity (VI)

Vegetation integrity (VI), an indicator of overall vegetation condition, was assessed for the rehabilitation monitoring plots, with results presented in Figure 14.

VI scores generally increased from 2020 to 2024, indicating improving vegetation condition over this period. However, a decline VI was observed in 2025. This decline is likely attributed to reductions in litter cover and native species cover recorded during the same period.

Figure 14: Vegetation Integrity Assessment for Rehabilitation Monitoring Plots



3.1.3 Box-Gum Monitoring Plots

3.1.3.1 Composition and Structure

Species richness and vegetation cover (by growth form) for the Box-Gum monitoring plots are presented in Figure 15 and Figure 16, respectively. Tables of the analysed data used to generate these figures are provided in Appendix A.

At BG1, tree species richness fluctuated between 1 and 3 species, while tree cover remained relatively stable at 9 to 11%, remaining below benchmark values. Minor variation in these values is likely associated with past storm damage. At BG2, tree species richness ranged from 3 to 6 species, with recent increases corresponding to higher tree cover, which ranged from 6 to 37% and now meets benchmark levels. This reflects recent natural regeneration observed within the plot.

Shrub species richness ranged from 1 to 2 species and remained below benchmark values. In contrast, shrub cover ranged from 17 to 60% and consistently exceeded benchmark values at both plots.

Grass species richness ranged from 5 to 9 species and was generally below benchmark values, except at BG1, where it met benchmark in 2023. Grass cover ranged from 1.3 to 55.6%, with BG1 within benchmark ranges and BG2 remaining below benchmark values.

Forb species richness ranges from 2 to 11 species and remained below benchmark values at both plots. A slight increase in forb species richness was observed at BG1 over the monitoring period, while BG2 showed a decline. Forb cover ranged from 0.3 to 25.2%, exceeding benchmark values at BG2 in 2024 and at BG1 in 2025.

Species richness and cover for the 'other' growth form category remained nil throughout the monitoring period and are below benchmark.

Overall, native species richness and cover within the Box-Gum monitoring plots exhibited minor fluctuations over the monitoring period, with cumulative values across growth forms approaching PCT benchmark levels. Increased shrub layer density may have influenced ground layer species richness and cover at both plots.

Figure 15: Native Species Richness for Box-Gum Monitoring Plots

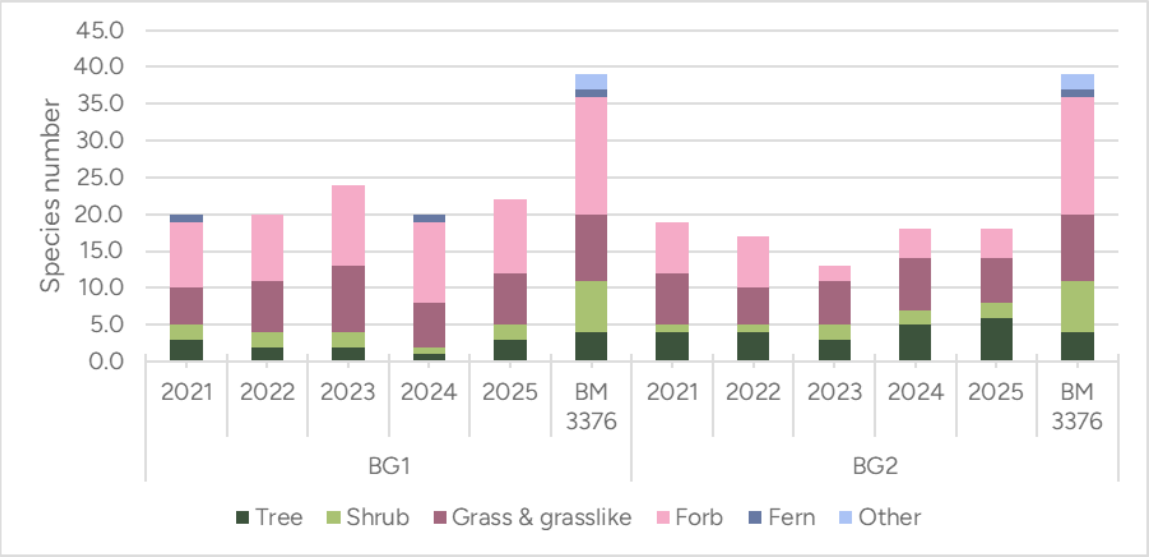
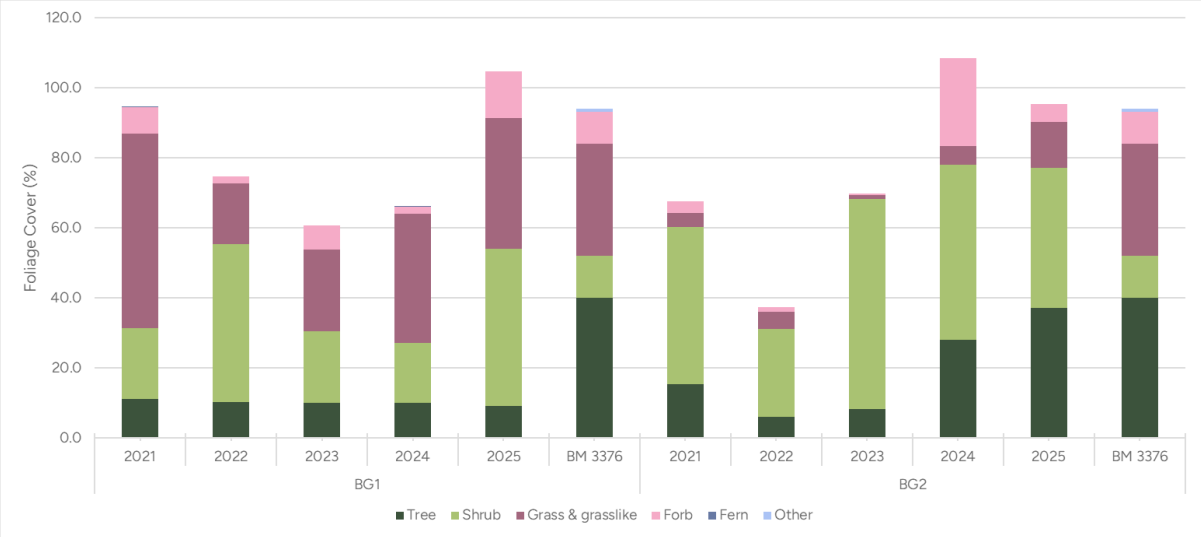


Figure 16: Native Species Cover for Box-Gum Monitoring Plots



3.1.3.2 Introduced Species

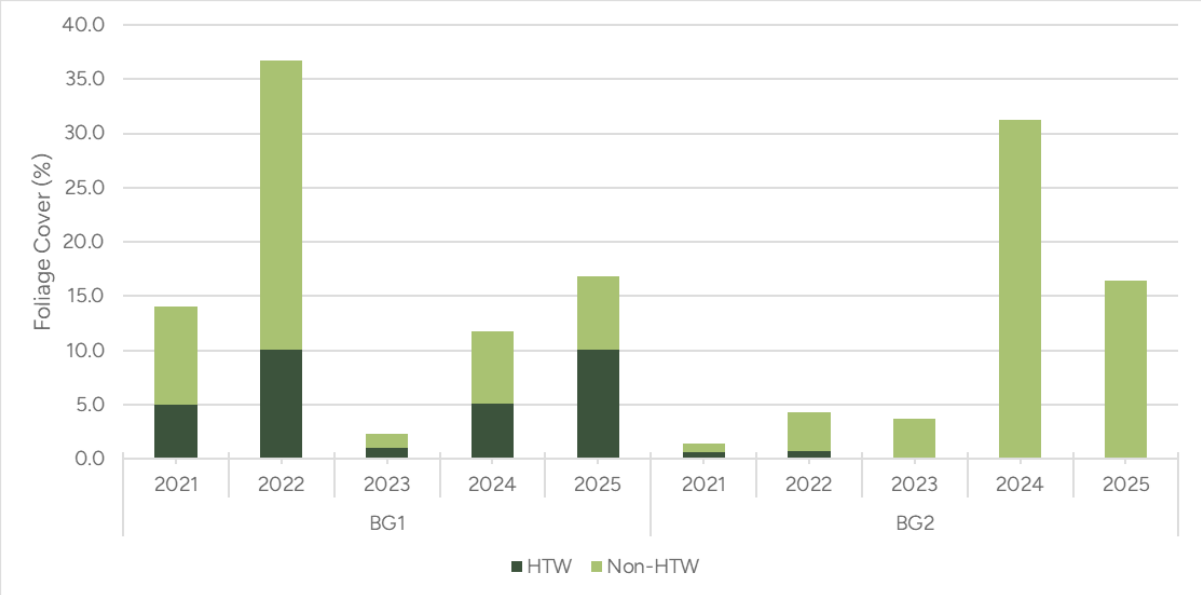
Exotic species cover within the Box-Gum monitoring plots is presented in Figure 17, showing the foliage cover of both HTW and non-HTW introduced species.

Across the monitoring period, HTW cover ranged from 0.1 to 10.1%, while non-HTW cover ranged from 0.8 to 31.3%.

At BG1, total weed cover peaked in 2022, driven primarily by elevated non-HTW cover, before declining substantially in 2023. Cover increased again in 2024 and 2025, with 2025 showing notable increase in HTW species compared with previous years, although values remained below the 2022 peak.

At BG2, overall weed cover remained low between 2021 and 2023. A marked increase was observed in 2024, attributable to higher non-HTW cover, dominated by *Anthoxanthum odoratum*, followed by a decline in 2025.

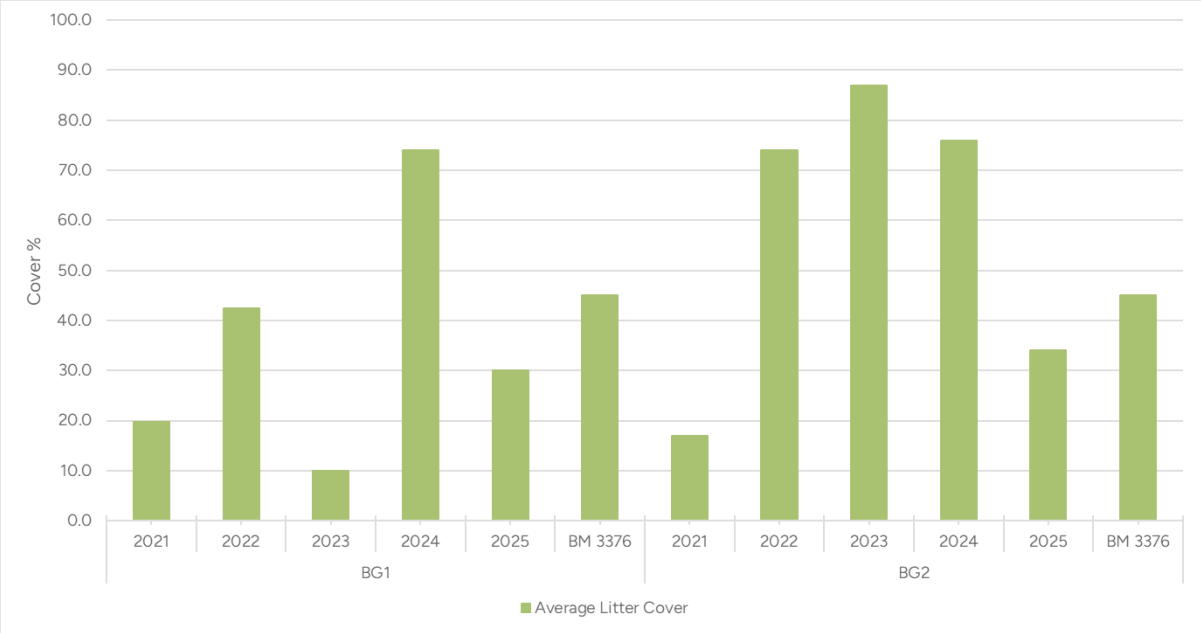
Figure 17: Exotic Species Cover for Box-Gum Monitoring Plots



3.1.3.3 Function

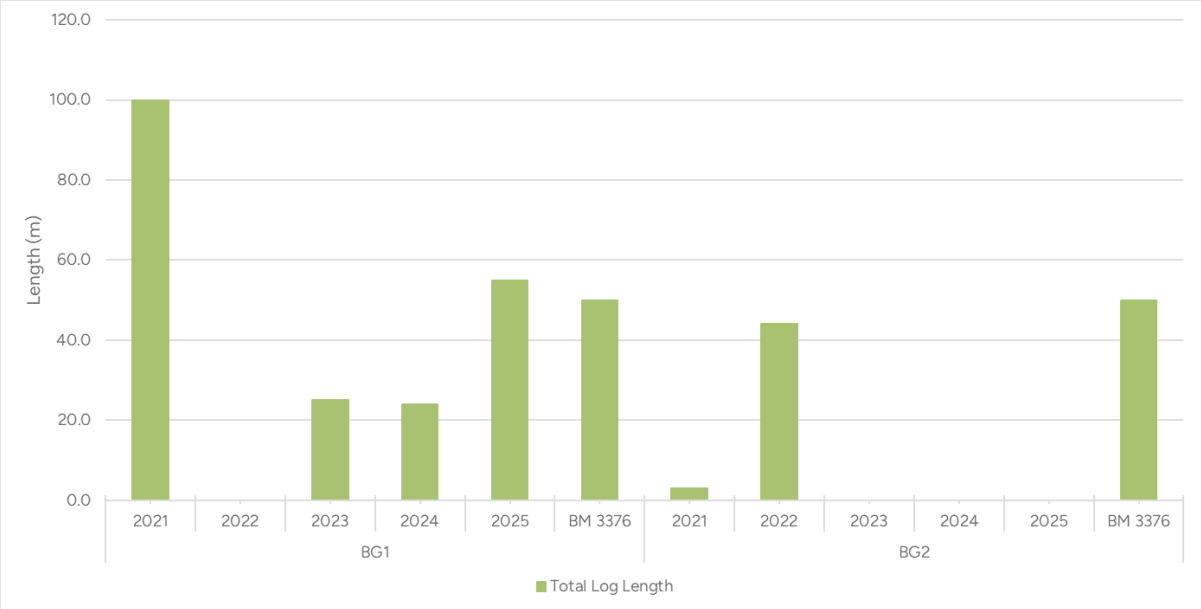
Litter cover within the Box-Gum monitoring plots was assessed against benchmark values (Figure 18). Litter cover ranged from 10 to 87% across the monitoring period and exhibited an overall increasing trend. At BG1, litter cover may be influenced by surface water flows, as the plot is located adjacent to a drainage line and shows evidence of sheet erosion.

Figure 18: Percent Litter Cover for Box-Gum Monitoring Plots



The Box-Gum monitoring plots were assessed against benchmark values for total length of coarse woody debris (Figure 19). Total length of coarse woody debris ranged from 0 to 100 m across the monitoring period, indicating substantial temporal variability. Recent measurements were below the benchmark values of 50 m at most plots; however BG1 met benchmark levels in 2025.

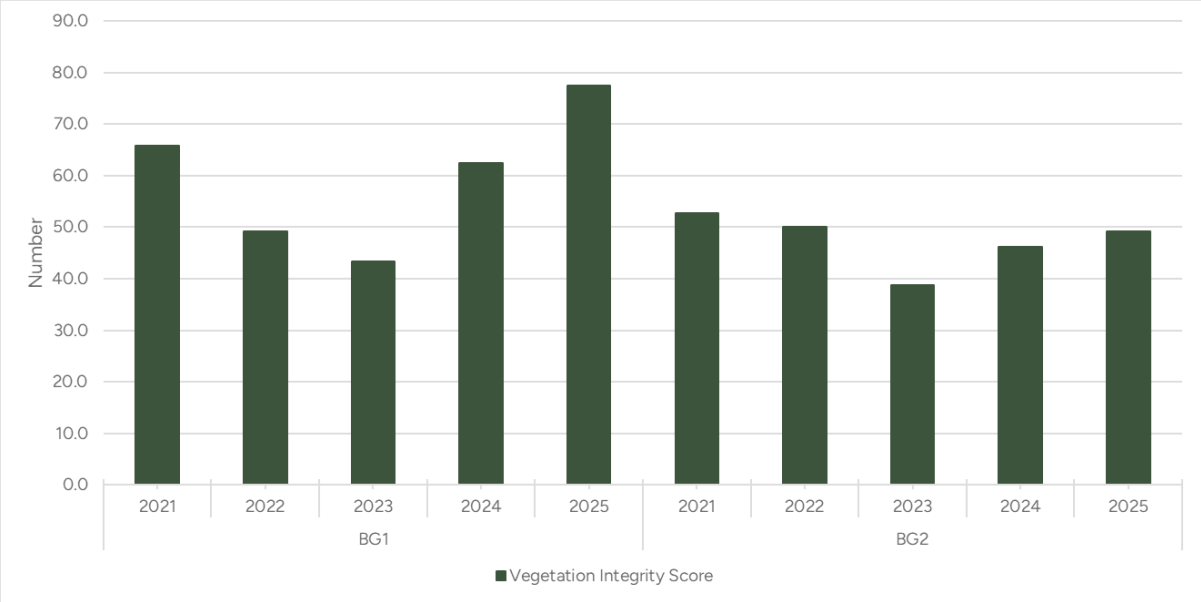
Figure 19: Total Length of Coarse Woody Debris for Box-Gum Monitoring Plots



3.1.3.4 Vegetation Integrity (VI)

Vegetation integrity (VI) for the Box-Gum monitoring plots was assessed with results presented in Figure 20. VI scores, expressed relative to a benchmark value of 100, declined during the early monitoring period but have improved in recent years, returning toward levels recorded in 2022.

Figure 20: Vegetation Integrity Assessment for Box-Gum Monitoring Plots



3.1.4 Core Riparian Plots

3.1.4.1 Composition and Structure

Species richness and species cover for the core riparian monitoring plots are presented in Figure 21 and Figure 22, respectively. Tables of the analysed data used to generate these figures are provided in Appendix B.

Tree species richness ranged from 1 to 4, reaching benchmark values at CR2 in 2024. Tree cover ranged from 2 to 45%, also meeting benchmark values at CR2. Tree cover at CR2 increased steadily over the monitoring period. At CR1, a recent decline in *Acacia* spp. cover was observed, likely associated with senescence.

Shrub species richness ranged from 1 to 4 and remained below the benchmark of seven. Shrub cover ranged from 0.1 to 39.5%. Following a substantial increase in 2023, shrub cover declined, with CR1 returning to below benchmark values.

Grass and grass-like species richness ranged from 2 to 7 and remained below the benchmark value of nine. A slight increase in richness was observed at CR2 across the monitoring period, while CR1 remained relatively unchanged. Cover for grass and grass-like species ranged from 3.5 to 53.4%. After increasing in recent years and reaching benchmark values at CR2 in 2024, cover declined to moderate levels in 2025.

Forb species richness remained relatively stable, ranging from 1 to 2 species at CR1 and 2 to 6 species at CR2, and remaining below benchmark values at both plots. Forb cover ranged from 0.1 to 7.1% and remained below benchmark values, although a gradual increase was observed over time.

Overall, native species richness and cover at CR2 increased over the monitoring period, with some structural layers meeting benchmark values. In contrast, native species richness and cover at CR1 declined in recent years.

Figure 21: Native Species Richness for Core Riparian Plots

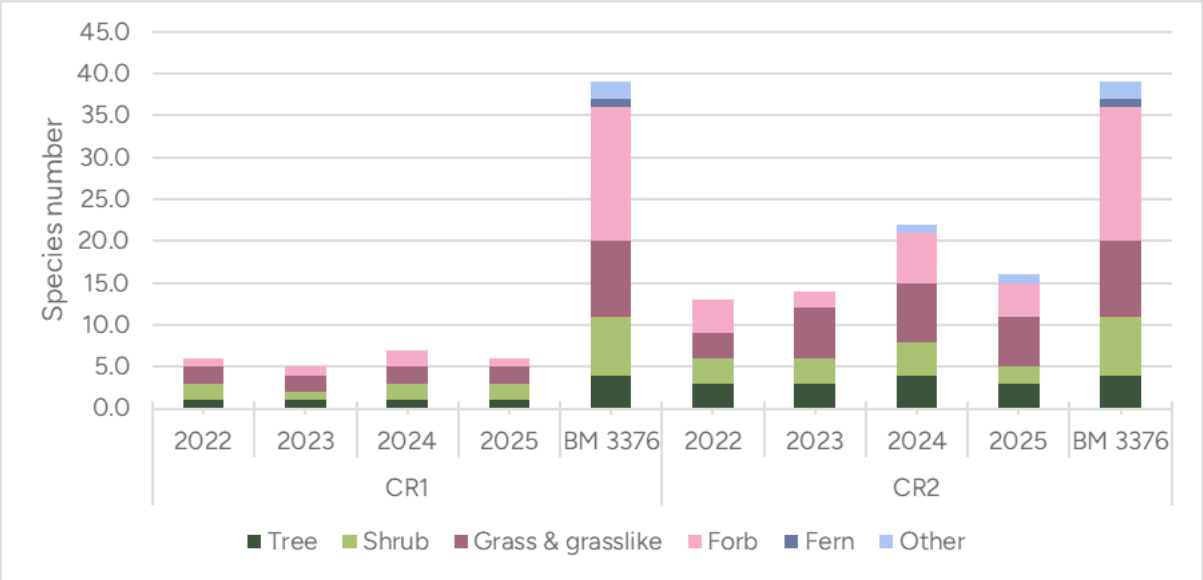
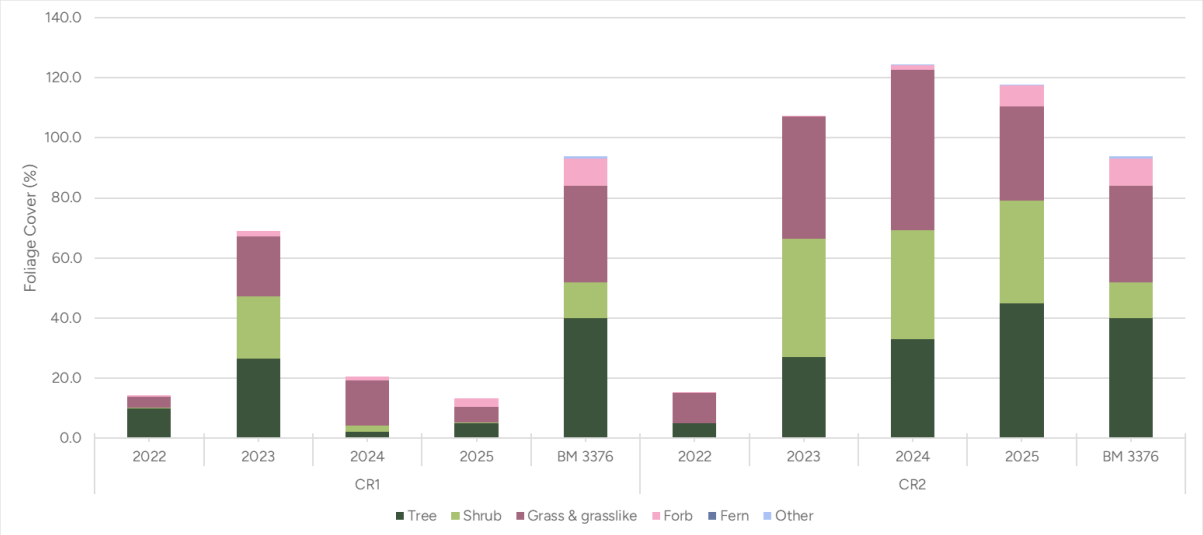


Figure 22: Native Species Cover for Core Riparian Plots



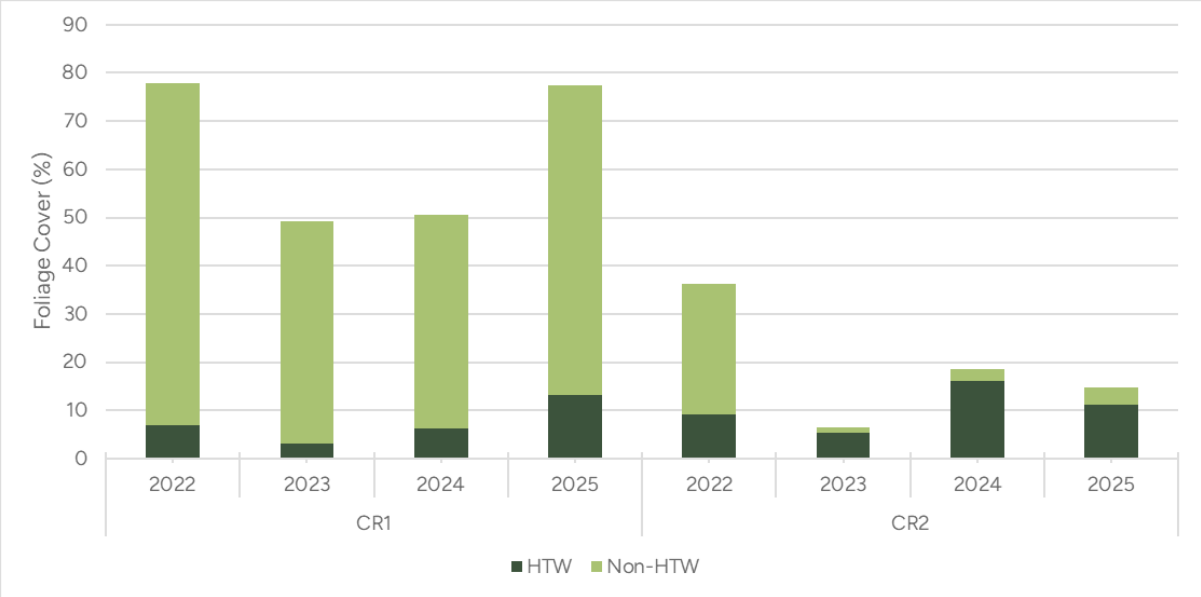
3.1.4.2 Introduced Species

Exotic species cover within core riparian plots is presented in Figure 23, showing the cover of HTW and non-HTW species.

Across the monitoring period, HTW cover ranged from 3.2 to 16%, while non-HTW introduced species cover ranged from 1.1 to 70.8%.

Total weed cover was highest at CR1 in 2022, followed by a decrease at both core riparian plots in 2023. Weed cover subsequently increased slightly in recent years. A recent increase in HTW species, including *Rubus anglocandicans* (Blackberry) and *Nassella trichotoma* (Serrated Tussock), was recorded at both plots.

Figure 23: Exotic Species Cover for Core Riparian Plots

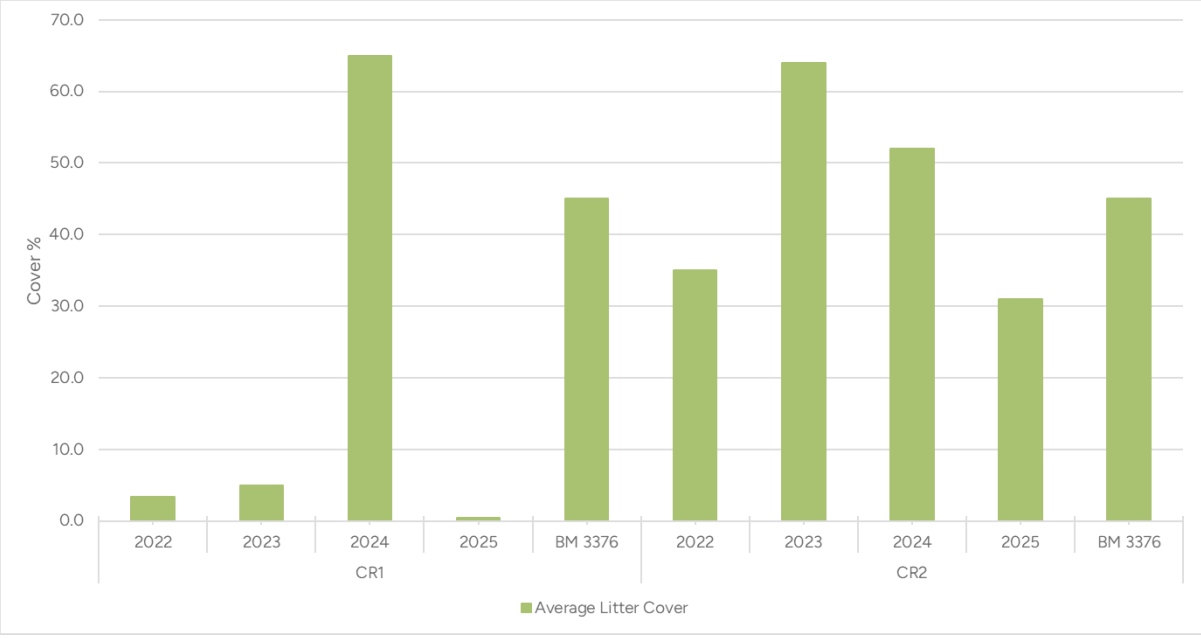


3.1.4.3 Function

The core riparian monitoring plots were assessed against benchmark values for litter cover (Figure 24). Litter scores ranged from 0.4 to 65% across the monitoring period.

Overall, litter cover exhibited temporal variability, and benchmark levels (45%) were achieved intermittently at both plots.

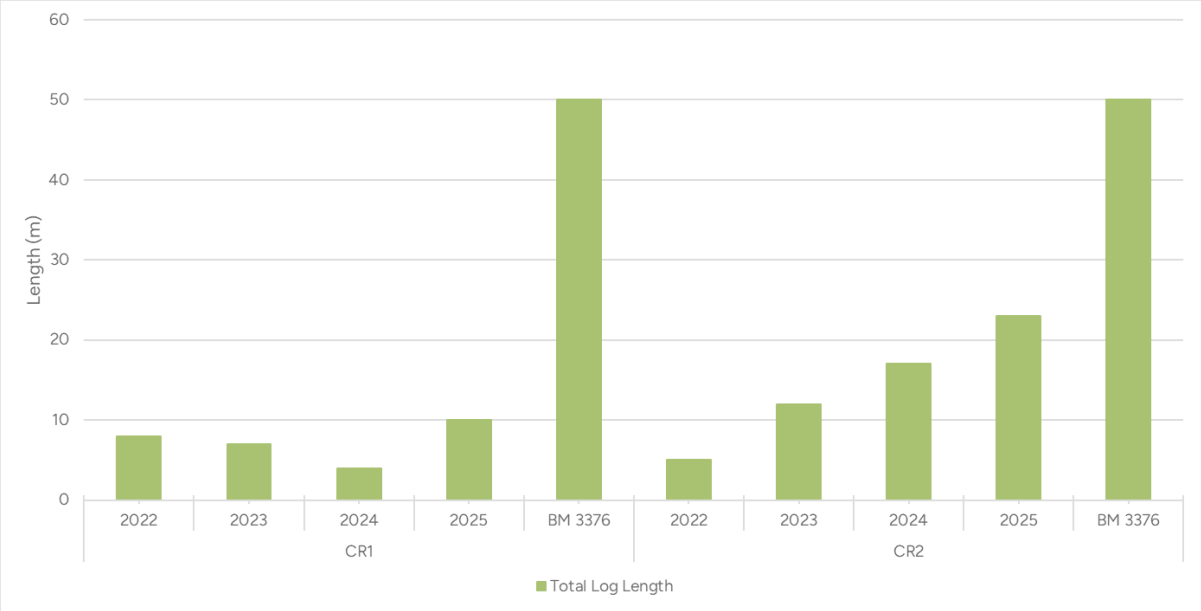
Figure 24: Percent Litter Cover for Core Riparian Plots



Total coarse woody debris length for the core riparian monitoring pots is presented in Figure 25. Total log length ranged from 4 to 23 m across the monitoring period and remained below the benchmark value of 50 m at both plots.

Overall, the length of coarse woody debris increased over the monitoring period, although a steady decline was observed at CR1 between 2022 and 2024.

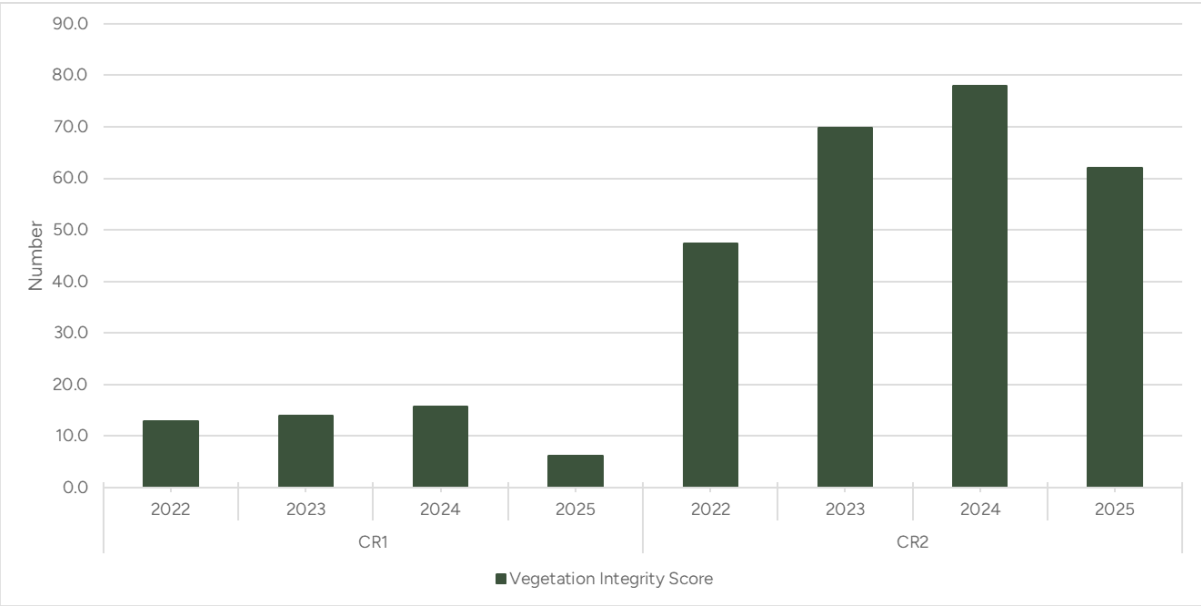
Figure 25: Length of Coarse Woody Debris for Core Riparian Plots



3.1.4.4 Vegetation Integrity (VI)

Vegetation integrity (VI) for the core riparian monitoring plots was assessed, with results presented in Figure 26. VI scores increased across both plots over the monitoring period, indicating an overall improvement in vegetation condition. However, a decline was observed in 2025 relative to 2024. At CR1, VI has decreased to a level below that recorded at the commencement of monitoring in 2022.

Figure 26: Vegetation Integrity Assessment for Core Riparian Plots



3.2 Nest Box Monitoring

A total of 100 nest boxes were inspected during the winter monitoring event (refer to Appendix C for the complete nest box inventory). Key findings are summarised below:

- **Native fauna occupancy**

  Nine nest boxes were occupied by native fauna, comprising:

  - Seven boxes occupied by either Sugar Gliders or Squirrel Gliders (*Petaurus* spp.)
  - One box occupied by a Brushtail Possum (*Trichosurus vulpecula*)
  - One box occupied by an Owlet Nightjar (*Aegotheles cristatus*)

- **Evidence of breeding activity**

  Two nest boxes contained eggshell fragments; however, no intact eggs were recorded.

- **Nesting material**

  Sixty-four nest boxes contained nesting material, including:

  - Leaf material consistent with glider nests
  - Bark and leaf material consistent with Australian Wood Duck (*Chenonetta jubata*) nesting, including associated eggshell fragments

- **Nest box condition – usage indicators**

  Forty-two nest boxes showed evidence of chew marks at the entrance, ranging from minor to severe.

- **Pest species**

  No pest species were recorded in any nest boxes.

- **Maintenance requirements**

  Thirteen nest boxes require maintenance, including:

  - One box dislodged from a tree requiring replacement and reinstallation
  - Four salvaged log hollows requiring capping of one entrance
  - Two boxes requiring roof replacement
  - Two boxes with splitting timber requiring repair
  - One box requiring roof hinge repair
  - One box with a crack requiring sealing
  - One box requiring repair of the tree attachment binding
  - One box with entrance damage requiring repair

- **General condition**

  Fifteen nest boxes showed early signs of wear and are likely to require maintenance in future monitoring cycles.

3.3 Hoary Sunray Monitoring

Results of the *Leucochrysum albicans* var. *tricolor* population survey for 2024-2025 are presented in Table 7. The total population estimate derived from the detailed survey is 7,972 individuals, and the mapped extent of the population is approximately 13.35 ha.

No previous population estimates derived using parallel traverse methods are available for comparison; therefore, this result provides a baseline for future assessments.

Previously reported estimates of population size and extent ranged from 200,000 and 15,000,000 individuals over approximately 47 ha (Umwelt 2013; SLR 2023, 2024, 2025).

The apparent reduction in extent is likely due to unreliable past estimates and may also be influenced by seasonal conditions and site management practises, including changes to slashing regimes and increased competition from weed species. It is also noted that the population may extend beyond the areas subject to recent assessments.

In any case, it is apparent that a significant population of the Hoary Sunray persists within areas of the site identified as potential habitat.

Table 7: Hoary Sunray 2024-2025 Population Count

Plot ID	Parallel Traverse Count	Patch Area Estimate (ha)
HS1	180	0.03
HS2	135	0.03
HS3	269	0.03
HS4	211	0.55
HS5	258	1.40
HS6	1,222	0.05
HS7	208	0.02
HS8	77	0.07
HS9	4,317	11.03
HS10	388	0.05
HS11	707	0.09
Av/Total	**7,972**	**13.35**

3.4 Rehabilitation Inspection

3.4.1 General Observations

General observations were recorded at all monitoring plots in 2025 and are provided in Appendix B.

Natural regeneration was observed at most plots; however, some areas exhibited low levels of regeneration. Open paddock areas (e.g. RM2, RM3, RM5) monitored for natural regeneration are dominated by *Cassinia sifton* (Sifton Bush), which exhibits high abundance and cover. This species is a coloniser of disturbed ground and appears to be suppressing other native species, including Hoary Sunray. Its density may also increase bushfire risk and limit access to monitoring plots. At RM1, natural regeneration was limited due to recent earthworks, although planted trees and shrubs were evident.

Native species cover and richness varied across the plots but were generally lower within rehabilitation areas, particularly in the canopy layer. Overall vegetation health ranged from moderate to good but tended to be lower at rehabilitation plots. Weed species were recorded at most plots, with a slight reduction observed in 2025. Evidence of weed control activities was noted across the site (Photo 1 and Photo 2), although higher weed abundance persists at RM1, RM5 and CR1. Key weed species recorded include *Nassella trichotoma* (Serrated Tussock), *Hypericum perforatum* (St John's Wort), *Rubus anglocandicans* (Blackberry), and *Anthoxanthum odoratum* (Sweet Vernal Grass).

No threatened or otherwise significant species were recorded within the vegetation monitoring plots. Although previous estimates suggested a decline in Hoary Sunray abundance within the site, the more detailed survey program confirmed that the species remains present in relatively high numbers. No evidence of feral animals was observed, and no rabbit burrows or warrens were identified during the 2025 monitoring survey.

Minor sheet erosion was observed at RM1, and minor bank erosion was recorded at CR1 and CR2. Erosion control measures appear to have been implemented (Photo 1). No evidence of recent fire was recorded at any plots, and fuel loads were low at the time of the survey. Although cover of *Cassinia sifton* (Sifton Bush) has declined over the past two years, it may continue to present a fire hazard, particularly at RM2, RM3 and RM5.

No notable signs of recent human or animal disturbance were recorded, and no additional site management issues or successes were identified during the 2025 monitoring event.

Photo 1: Serrated Tussock and Erosion Control at the Amenity Bund

Photo 2: Evidence of Blackberry and Serrated Tussock Control at CR2

3.4.2 Biodiversity Offset Area Observations

Retained Box-Gum woodland vegetation within the BOA (i.e. Box-Gum Woodland and Box-Gum Woodland-derived Native Grassland CEEC; see Figure 4) is generally in moderate to good condition. No immediate actions are required aside from targeted control of high-threat weed species, including *Nassella trichotoma* (Serrated Tussock) and *Hypericum perforatum* (St John's Wort), as well as *Anthoxanthum odoratum* (Sweet Vernal Grass).

Open areas in the western portion of the BOA, which appear to have been historically cleared and previously identified as derived native grassland, are undergoing natural regeneration. Regeneration is characterised by recruitment of *Eucalyptus* spp. and *Cassinia sifton* (see Photo 3). Evidence of recent planting was also observed in the south-eastern portion of the BOA (Photo 4).

Other areas within the BOA are also in moderate to good condition. However, ongoing control and maintenance of high-threat and priority weed species are required including *Nassella trichotoma* (Serrated Tussock), *Hypericum perforatum* (St John's Wort), and *Rubus anglocandicans* (Blackberry). These species occur sporadically, particularly in the south-eastern portion of the BOA.

In 2023, a substantial increase in the cover and abundance of Sifton Bush (*Cassinia sifton*) was observed, particularly in disturbed open paddock areas. More recent climatic conditions (2024-2025) appear to have reduced the rate of expansion of this species. Although native, *Cassinia sifton* is recognised as a coloniser of disturbed areas and can behave as a problematic species in degraded native pasture (DPI 2026). At present, high cover of this

species appears to be suppressing other native species and may be contributing to localised reductions in Hoary Sunray abundance.

Where cover does not decline naturally over time, management measures such as targeted slashing or brush-cutting may be considered. These actions should be designed to minimise soil disturbance, which could promote further germination, and to reduce impacts on other native species. Supplementary tree planting may also assist in reducing its extent over time.

No active erosion was observed within inspected areas of the BOA; however, erosion has previously been recorded along the southern boundary, particularly in areas associated with creeks and drainage lines. Targeted inspections of these areas should continue, and erosion control measures implemented where required.

No additional management issues were identified within the BOA during the 2025 monitoring event.

Photo 3: Regeneration in Box-Gum Woodland Derived Native Grassland CEEC

Photo 4: Tree Planting in Southern BOA

4.0 Completion Criteria Assessment

An assessment of the completion criteria from the RLMP is provided in Appendix D. The assessment determined the following:

- **Amenity bund**
  - Relevant completion criteria are on track for vegetation establishment, groundcover protection, and progression towards a sustainable ecosystem with a developing tree layer.
- **HMA**
  - Two completion criteria were unable to be assessed: fencing of the HMA and cattle exclusion.
  - Two criteria are on track for completion: nest box usage and weed and feral pest control.
  - One criterion, relating to natural regeneration, has not been met.
- **Core riparian corridors**
  - Two completion criteria are not met due to limited revegetation and natural regeneration at CR1.
  - The weed and feral pest control criterion is on track for completion.
  - Nest box usage criteria for Jaorimin Creek have been met.
  - criterion (cattle exclusion) could not be assessed.

5.0 Discussion and Recommendations

5.1 Vegetation Monitoring

5.1.1 Floristic Analysis

Floristic analysis against PCT classifications (DPE 2022) indicates that most plots correspond to PCT 3373 or PCT 3376, which represent forms of the CEEC White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (TSC 2020; DCCEEW 2025b).

Ongoing comparison with PCT classifications is recommended at each monitoring event to confirm that vegetation remains representative of the target community types.

5.1.2 Rehabilitation Monitoring Sites

Rehabilitation monitoring plots continue to exhibit low tree cover and diversity, high shrub cover, and low to moderate cover and richness within grass, forb, fern, and other growth-form layers. Elevated shrub cover, particularly due to *Cassinia sifton*, remains a defining feature of these sites. Natural regeneration is generally limited.

Weed cover is typically low; however, RM1 and RM5 would benefit from continued targeted weed control. Overall, these sites remain below benchmark values for their respective PCTs. Management should prioritise control of Cassinia sifton, followed by infill native tree planting to promote structural diversity and progression toward target vegetation communities.

Coarse woody debris length is limited across most rehabilitation sites, reflecting the absence of mature vegetation. Placement of additional coarse woody debris should be considered, where feasible, to enhance habitat complexity.

No threatened or significant flora or fauna species, or feral animals, were recorded. Localised erosion was observed at RM1 and within core riparian areas (CR1 and CR2), and ongoing erosion management is recommended. Fuel loads were low at the time of survey; however, *Cassinia sifton* remains a potential fire hazard at RM2, RM3, and RM5. Targeted slashing or brush-cutting is recommended where cover remains high.

No evidence of recet disturbance was recorded. Tree plantings at RM1 appear to be successful, and fencing at RM5 remains in good condition.

Recommended actions include:

- Targeted weed control, particularly at RM1 and RM5
- Control of *Cassinia sifton* where cover remains high
- Infill native tree planting to improve structure and canopy development
- Placement of coarse woody debris where feasible
- Continued monitoring of erosion and feral animal activity

5.1.3 Box-Gum Monitoring Sites

Vegetation condition at Box-Gum monitoring plots has generally improved over the monitoring period. Native species richness and cover have increased, and natural regeneration is evident. Overall vegetation health is moderate to good, with some structural attributes now within benchmark ranges.

Weed cover remains low, and no threatened species, feral animals, or erosion issues were recorded. No evidence of recent fire or disturbance was observed, and fencing remains in good condition. Vegetation integrity has remained stable or improved, reflecting ongoing regeneration processes at these sites.

Recommended actions are limited and include:

- Ongoing light weed control to maintain current condition

5.1.4 Core Riparian Sites

Core riparian monitoring plots show generally stable vegetation condition, with some improvement in structural layers and occasional attainment of benchmark values. However, vegetation condition remains variable between sites. Tree and shrub cover and diversity remain low at CR1, and natural regeneration is limited.

No threatened species or feral animals were recorded. Minor bank erosion persists at CR1 and CR2. No evidence of recent fire was observed, and fuel loads remain low. No disturbance issues were identified.

Recommended actions include:

- Continued weed control
- Targeted tree and shrub planting, particularly at CR1
- Ongoing erosion monitoring and implementation of erosion control measures where required

5.2 Nest Box Monitoring

Most nest boxes installed on the site show evidence of usage, with 74 of 100 boxes exhibiting signs of activity and nine boxes occupied by live fauna at the time of inspection.

Regarding target species:

- Boxes designed for Squirrel Gliders were utilised by Sugar Gliders, Squirrel Gliders, or associated nesting material. One of these boxes was occupied by an Owlet Nightjar (*Aegotheles cristatus*).
- Boxes designed for Brushtail and Ringtail Possums showed evidence of use by possums and birds, predominantly Australian Wood Ducks (*Chenonetta jubata*).
- Bat boxes showed no evidence of use.
- Boxes intended for Owlet Nightjars and Rosellas showed evidence of use by gliders.
- Salvaged log hollows showed limited evidence of use, with only one hollow containing an old leaf nest.

A total of 13 nest boxes require maintenance, primarily salvaged hollows with multiple entrances. Reducing the number of entrances (e.g. through capping) may improve suitability for target fauna species. Additional maintenance requirements include:

- Roof repairs or replacement
- Repair of cracks and splitting timber
- Replacement or repair of hinges
- Replacement of one nest box that has fallen from a tree

To extend the lifespan and durability of nest boxes, the following best practice measures are recommended:

- Apply a protective coating to external surfaces only
- Maintain internal surfaces as untreated timber
- Use suitable finishes such as:
  - Exterior water-based paint (e.g. Dulux Weathershield)
  - Water-based decking oil (e.g. Intergrain, Merbau colour)
  - Varnish
- Apply two to three coats to ensure adequate protection

Nest box orientation should also be considered to maximise habitat suitability:

- Microbats typically prefer north to north-west facing aspects
- Birds and arboreal mammals generally prefer easterly aspects (north-east to south-east facing)
- Arboreal mammals (e.g. gliders, possums) favour sheltered locations with dense overhanging vegetation
- Birds generally prefer more open aspects

Overall, monitoring indicates a high rate of nest box usage by native fauna and that most boxes are in moderate to good condition. Continued maintenance, installation optimisation (including entrance modification and orientation), and ongoing monitoring are recommended to support long-term habitat availability and minimise impacts on native fauna.

5.3 Hoary Sunray

The Hoary Sunray population at Lynwood Quarry appears to be robust, with an estimated 8,000 individuals distributed across eleven mapped locations.

The true extent of the population is likely greater than this estimate, due to seasonal variation in emergence and flowering, the presence of unsurveyed areas within the site, and the potential contribution of a persistent soil seed bank.

Ongoing monitoring using both parallel traverse surveys and plot-based methods is recommended to track population trends, distribution, and recruitment over time.

6.0 Conclusion and Actions Summary

The 2025 ecological monitoring program at the Holcim Quarry collected data on:

- Progress of passive and active rehabilitation
- Usage and condition of nest boxes
- Population size and condition of Hoary Sunray

Overall, vegetation condition across the site is moderate to good. The key management issues identified are:

1 High-threat weed abundance

2 Increased dominance of the native shrub *Cassinia sifton* Sifton Bush

Rehabilitation areas require targeted control of *Cassinia sifton*. Recommended management measures including slashing or brush-cutting using methods that minimise soil disturbance, combined with interplanting of tree and shrub species representative of the target PCTs.

No feral pest control measures are required at present; however, ongoing monitoring remains necessary. Although Hoary Sunray abundance was previously considered to be declining (SLR 2023, 2024), the 2025 detailed survey indicates that the population remains robust, with approximately 8,000 individuals distributed across 13 ha.

Additional monitoring activities planned for 2026 include:

- Continued monitoring of the additional 100 nest boxes within the HMA
- Ongoing monitoring of the amenity bund rehabilitation area (RM1)

Monitoring should continue in accordance with Section 1.3. The next monitoring event (2026) is expected to include:

- Nest box monitoring
- Retained vegetation monitoring at R1, R2, R3 and R4
- Hoary Sunray surveys
- Rehabilitation monitoring at RM1, RM2, RM3, and RM5
- Core riparian monitoring at CR1 and CR2
- Box-Gum woodland monitoring at BG1 and BG2

Recommended site management actions for 2025 include:

- Continued weed control across priority areas
- Implementation of a Cassinia sifton control program, in consultation with a bush regeneration specialist
- Infill planting of suitable native tree and shrub species
- Continued pest monitoring
- Nest box maintenance and repair
- Erosion control, particularly along creeks and drainage lines

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Appendix A PCT Profile and Benchmark Data (DCCEEW, 2025a)

Ecological and Rehabilitation Monitoring Report 2025

Lynwood Quarry, NSW

Holcim Australia Pty Ltd

SLR Project No.: 630.031740.00002

14 May 2026

Table A-1: PCT Description for PCT 3373 Goulburn Tableland Box-Gum Grassy Forest

Plant Community Type ID (PCT ID)	3373
VCA Type ID	0
PCT Name	Goulburn Tableland Box-Gum Grassy Forest
PCT Scientific Name	
Authority	Eastern NSW PCT Classification
Classification Type	Quantitative
Classification Confidence Level	High
Vegetation Formation	Grassy Woodlands;
Vegetation Class	Southern Tableland Grassy Woodlands;
Vegetation Description	A mid-high to tall dry sclerophyll grassy open forest to woodland of northern parts of the Southern Tablelands, occurring from Canberra and Queanbeyan north to Pejar and east to Durran Durra and Canyonleigh, with a northern outlier at Golspie. It is found in landscape positions with moderately deep soil profiles, particularly footslopes of gently undulating low hills, on a wide range of substrates including sedimentary (sandstone, arenite, greywacke, shale), acid volcanic (ignimbrite, rhyolite) and granitic rocks. This PCT is found at elevations of 600-850 metres asl with mean annual rainfall of 650-800 mm. Remnants of this community often have a long history of disturbance and the tree canopy may be sparse to very sparse, commonly including *Eucalyptus melliodora* and occasionally with *Eucalyptus macrorhyncha*, *Eucalyptus blakelyi* or *Eucalyptus dives*. A very sparse shrub stratum commonly includes scattered *Lissanthe strigosa*, *Pimelea curviflora*, *Melichrus urceolatus* or *Hibbertia obtusifolia*, while the ground layer is predominantly grassy and commonly includes *Themeda triandra*, *Microlaena stipoides*, *Poa sieberiana*, *Elymus scaber* and *Aristida ramosa*, with occasional high cover of *Rytidosperma laeve*. Common forbs include *Lomandra filiformis*, *Lomandra multiflora* subsp. *multiflora*, *Goodenia hederacea*, *Hydrocotyle laxiflora*, *Oxalis perennans*, *Chrysocephalum apiculatum*, *Tricoryne elatior*, *Gonocarpus tetragynus* and *Hypericum gramineum*. In lower landscape positions subject to cold air drainage this community may be replaced by PCT 3338, while on stony dry hills it commonly grades into PCT 3747.
Other Diagnostic Features	
IBRA Bioregion(s)	South Eastern Highlands;
IBRA Comments	
IBRA Sub-region(s)	Bungonia; Crookwell; Monaro; Murrumbateman;
NSW Landscape(s)	
LGA(s)	GOULBURN MULWAREE; QUEANBEYAN-PALERANG REGIONAL; UPPER LACHLAN SHIRE; YASS VALLEY;
Elevation Min(m)	615.2
Elevation Median(m)	698.5
Elevation Max(m)	839.5
Annual Rainfall Min(mm)	648
Annual Rainfall Median(mm)	698
Annual Rainfall Max(mm)	776
Annual Mean Temperature Min (deg.C)	11.28

Annual Mean Temperature Median(deg.C)	12.36
Annual Mean Temperature Max(deg.C)	13.18
Upper Stratum Species	
Mid Stratum Species	
Ground Stratum Species	
Diagnostic Species	
Emergent Species	
Tree Growth Form Group Species	*Eucalyptus melliodora , Eucalyptus macrorhyncha , Eucalyptus blakelyi , Eucalyptus dives , Eucalyptus mannifera , Eucalyptus bridgesiana , Acacia decurrens , Eucalyptus rubida , Eucalyptus rossii , Acacia dealbata , Acacia melanoxylon , Eucalyptus cinerea , Eucalyptus pauciflora , Allocasuarina littoralis , Eucalyptus amplifolia , Acacia parramattensis , Allocasuarina luehmannii , Eucalyptus tereticornis , Eucalyptus eugenioides , Eucalyptus goniocalyx , Eucalyptus polyanthemos , Eucalyptus radiata , Eucalyptus sclerophylla , Eucalyptus viminalis*
Shrub Growth Form Group Species	*Melichrus urceolatus , Lissanthe strigosa , Pimelea curviflora , Hibbertia obtusifolia , Bossiaea buxifolia , Dillwynia sericea , Brachyloma daphnoides , Astroloma humifusum , Cassinia sifton , Acacia genistifolia , Cassinia aculeata , Daviesia latifolia , Daviesia genistifolia , Acacia mearnsii , Acrotriche serrulata , Pultenaea procumbens , Indigofera australis , Pultenaea microphylla , Acacia deanei , Cryptandra amara , Daviesia mimosoides , Dillwynia phylicoides , Pultenaea subspicata , Acacia gunnii , Daviesia leptophylla , Exocarpos cupressiformis , Exocarpos strictus , Gompholobium huegelii , Leucopogon virgatus , Acacia rubida , Acacia ulicifolia , Cassinia longifolia , Daviesia ulicifolia , Hibbertia riparia , Leucopogon fraseri , Persoonia linearis , Rubus parvifolius , Acacia brownii , Acacia cognata , Acacia dawsonii , Acacia falciformis , Acacia implexa , Acacia paradoxa , Acacia terminalis , Calytrix tetragona , Cassinia laevis , Cassinia uncata , Grevillea lanigera , Hibbertia cistoidea , Kunzea parvifolia , Leptospermum continentale , Leptospermum myrtifolium , Leucopogon attenuatus , Leucopogon fletcheri , Leucopogon juniperinus , Olearia viscidula , Pimelea linifolia , Pomaderris andromedifolia , Pultenaea ferruginea , Rhytidosporum procumbens , Styphelia triflora*
Grass and Grass-like Growth Form Group Species	*Lomandra filiformis , Themeda triandra , Microlaena stipoides , Lomandra multiflora subsp. multiflora , Poa sieberiana , Elymus scaber , Aristida ramosa , Rytidosperma laeve , Austrostipa scabra , Dichelachne micrantha , Rytidosperma pallidum , Poa meionectes , Rytidosperma racemosum , Austrostipa densiflora , Echinopogon ovatus , Panicum effusum , Rytidosperma monticola , Luzula densiflora , Luzula flaccida , Rytidosperma tenuius , Schoenus apogon , Carex inversa , Lepidosperma laterale , Aristida jerichoensis , Juncus subsecundus , Rytidosperma pilosum , Austrostipa mollis , Aristida vagans , Echinopogon caespitosus , Juncus filicaulis , Lomandra longifolia , Poa labillardierei var. labillardierei , Rytidosperma auriculatum , Eragrostis benthamii , Lepidosperma gunnii , Rytidosperma caespitosum , Austrostipa rudis , Carex breviculmis , Chloris truncata , Dichelachne inaequiglumis , Dichelachne sieberiana , Eragrostis leptostachya , Juncus usitatus , Panicum simile , Rytidosperma penicillatum , Rytidosperma setaceum , Austrostipa pubinodis , Austrostipa semibarbata , Bothriochloa macra , Cynodon dactylon , Lomandra micrantha subsp. tuberculata , Lomandra obliqua , Rytidosperma carphoides , Rytidosperma erianthum , Rytidosperma nudiflorum*
Forb Growth Form Group Species	*Goodenia hederacea , Gonocarpus tetragynus , Hydrocotyle laxiflora , Hypericum gramineum , Chrysocephalum apiculatum , Oxalis perennans , Tricoryne elatior , Dianella revoluta , Bossiaea prostrata , Cymbonotus lawsonianus , Opercularia aspera , Einadia nutans , Hovea linearis , Wahlenbergia stricta , Solenogyne dominii , Galium gaudichaudii , Acaena echinata , Daucus glochidiatus , Microseris lanceolata , Stylidium graminifolium , Acaena ovina , Coronidium scorpioides , Crassula sieberiana , Leptorhynchos squamatus , Asperula conferta , Geranium solanderi , Laxmannia gracilis , Plantago gaudichaudii , Plantago varia , Ajuga australis , Calocephalus citreus , Opercularia hispida , Scleranthus biflorus , Bulbine bulbosa , Chrysocephalum semipapposum , Dichondra repens , Euchiton sphaericus , Rumex brownii , Veronica plebeia , Wahlenbergia communis , Wahlenbergia luteola , Acaena novae-zelandiae , Leucochrysum albicans , Opercularia diphylla , Plantago debilis , Senecio quadridentatus , Stackhousia monogyna , Wahlenbergia gracilis , Arthropodium fimbriatum , Brachyscome ciliaris , Eryngium ovinum , Hackelia suaveolens , Oxalis exilis , Vittadinia muelleri , Wahlenbergia graniticola , Asperula scoparia , Craspedia variabilis , Dianella longifolia , Drosera peltata , Euchiton involucratus , Euchiton japonicus , Poranthera microphylla , Sebaea ovata , Senecio prenanthoides , Thysanotus tuberosus , Veronica calycina , Viola betonicifolia , Vittadinia cuneata , Brachyscome rigidula , Caladenia carnea , Eriochilus cucullatus , Goodenia pinnatifida , Haloragis heterophylla , Lagenophora stipitata , Microtis unifolia , Oreomyrrhis eriopoda , Podolepis jaceoides*

	, Pterostylis reflexa , Senecio tenuiflorus , Swainsona sericea , Triptilodiscus pygmaeus , Velleia paradoxa , Arthropodium minus , Arthropodium strictum , Asperula ambleia , Burchardia umbellata , Caesia parviflora , Caladenia tentaculata , Calotis anthemoides , Calotis scabiosifolia , Cynoglossum australe , Dianella caerulea , Diuris sulphurea , Dysphania pumilio , Einadia hastata , Galium ciliare , Geranium retrorsum , Helichrysum rutidolepis , Hydrocotyle sibthorpioides , Isoetopsis graminifolia , Lagenophora gracilis , Mitrasacme serpyllifolia , Oxalis chnoodes , Oxalis radicosa , Plantago hispida , Pterostylis nana , Pterostylis truncata , Ranunculus lappaceus , Scleranthus diander , Senecio diaschides , Solenogyne gunnii , Stypandra glauca , Thelymitra circumsepta , Trachymene incisa subsp. incisa , Wahlenbergia littoricola , Wahlenbergia multicaulis , Xerochrysum bracteatum , Xerochrysum viscosum
Fern Growth Form Group Species	*Cheilanthes sieberi subsp. sieberi , Cheilanthes austrotenuifolia*
Other Growth Form Group Species	*Hardenbergia violacea , Glycine clandestina , Desmodium varians , Thysanotus patersonii , Glycine tabacina , Billardiera scandens , Convolvulus angustissimus , Amyema miquelii , Cassytha pubescens , Convolvulus erubescens , Muellerina eucalyptoides*
Median Native Species Richness per plot	37
Height Class (Walker and Hopkins 1990)	
Variation And Natural Disturbance	
Fire Regime	
Landscape Position	
Lithology	
Landform Pattern	
Landform Element	
Is PCT Derived?	
PCT derived from these communities	
PCT derived community comments	
Pre-European Extent	45446
Pre-European Extent Accuracy	
Pre-European Comments	Calculated from State Vegetation Type Map (SVTM) pre-clearing PCT map C1.1.M1 and Inland Multinomial Modelling. Values rounded to nearest hectare.
Current Extent	3589
Current Extent Accuracy	
Current Extent Comments	Calculated from State Vegetation Type Map (SVTM) extant PCT map C1.1.M1 and Inland Multinomial Modelling. Values rounded to nearest hectare.
PCT Percent Cleared	92.1
% accuracy (of PCT % cleared estimate)	
PCT Percent Cleared Comments	Calculated from State Vegetation Type Map (SVTM) pre-clearing and extant PCT maps C1.1.M1 and Inland Multinomial Modelling. Values are condition weighted SVTM % cleared estimates (see DPE 2022 Eastern NSW PCT % Cleared Calculation Technical notes). There may be a discrepancy between the calculated % cleared values and displayed values due to rounding.
PCT associated with TEC	Has associated TEC
TEC List	Listed BC Act,CE: White Box - Yellow Box - Blakelyâ€™s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner

	and Riverina Bioregions (Part) ; Listed EPBC Act,CE: White Box-Yellow Box-Blakelyâ€™s Red Gum Grassy Woodland and Derived Native Grassland (Part) ;
TEC Comments	(Comment TEC1) Relates to the NSW White Box - Yellow Box - Blakelyâ€™s Red Gum Grassy Woodland TEC. (Comment TEC2) May relate to the Commonwealth White Box-Yellow Box-Blakelyâ€™s Red Gum Grassy Woodland TEC where it meets condition criteria as per section 4 of the Listing Advice.
Adequacy of plot sampling	None
Total Number of Replicates	85
Number of Primary Replicates	56
Number of Secondary Replicates	29
Pre-European Mapped Or Modelled	
Current Extent Mapped Or Modelled	
Classification source	
Citations	Connolly, D. et al., in prep.
Full Reference Details	Connolly, D., Binns, D., Turner, K., Hager, T., Lyons, M., Magarey, E. (in prep.) A revised classification of Plant Community Types for eastern New South Wales. NSW DPIE, Parramatta;
Profile Source	R4.145;
PCT Definition Status	Approved

Table A-2: Benchmark Data PCT 3373

Plant Community Type ID(PCT ID)	3373
Classification Confidence Level	High
PCT Name	Goulburn Tableland Box-Gum Grassy Forest
PCT Scientific Name	
Vegetation Class	Southern Tableland Grassy Woodlands
Vegetation Formation	Grassy Woodlands
IBRA Bioregion Code	SEH
IBRA Bioregion(s)	South Eastern Highlands
Benchmark Calculation Level	Class/IBRA
PCT Benchmark Variation	monthly average, following AVERAGE RAINFALL year
Rainfall Threshold	560 - 846
Default Benchmark Condition	Yes
Tree richness	4
Shrub richness	7
Grass and grass - like richness	9
Forb richness	16
Fern richness	1
Other richness	2
Tree cover	26
Shrub cover	5
Grass and grass - like cover	35
Forb cover	9
Fern cover	0
Other cover	0
No.of large trees(per 0.1ha)	50
Litter cover	45
Total length of fallen logs	3
Large Tree Threshold Size	50
PCT Benchmarks Comments	Composition-Structure Benchmark : Class/IBRA | Function: Logs-Class; Litter-Class; Large Trees-Formation
PCT Benchmarks Reference Site	
Benchmark source	Multiple methods
Benchmark Confidence	Composition: High | Structure: Moderate | Function: Logs-Moderate; Litter-Moderate; Large Trees-Moderate
PCT Benchmark Status	Approved
PCT Definition Status	Approved

Table A-3: PCT Description for PCT 3376 Southern Tableland Grassy Box Woodland

Plant Community Type ID (PCT ID)	3376
VCA Type ID	0
PCT Name	Southern Tableland Grassy Box Woodland
PCT Scientific Name	
Authority	Eastern NSW PCT Classification
Classification Type	Quantitative
Classification Confidence Level	Medium
Vegetation Formation	Grassy Woodlands;
Vegetation Class	Southern Tableland Grassy Woodlands;
Vegetation Description	A tall sclerophyll woodland with a dry shrub layer that is patchy to absent and a mid-dense, grassy groundcover, widespread in the low hills of the drier parts of the Southern Tablelands between Bredbo and Rylstone. The canopy almost always includes Box eucalypts (*Eucalyptus melliodora* or *Eucalyptus bridgesiana*), occasionally associated with *Eucalyptus blakelyi* which may be locally prominent in lower parts of the landscape. The shrub layer is sparse to absent with occasional, scattered *Melichrus urceolatus*, *Lissanthe strigosa* or various Acacia species. The mid-dense ground layer typically includes grasses, forbs, graminoids and some twiners, very frequently including *Hydrocotyle laxiflora*, *Austrostipa scabra*, *Lomandra filiformis*, *Microlaena stipoides* and *Elymus scaber*. The PCT primarily occurs in the Bredbo, Canberra, Goulburn and Boorowa areas, with more scattered occurrences extending north to Bathurst, Orange and Rylstone. It occurs on granite, volcanic and sedimentary substrates in cold, dry environments with a mean annual rainfall typically below 760 mm. While widespread, this PCT primarily occurs in small, often disturbed patches with a long history of grazing. It is not closely related floristically to nearby PCTs, however it grades into PCT 3373 which has a more diverse shrub layer and some subtle differences in canopy species. *Eucalyptus macrorhyncha*, *Eucalyptus dives*, *Bossiaea buxifolia*, *Dillwynia sericea* and *Brachyloma daphnoides* are only occasional in PCT 3373 however collectively represent a suite of species that are rare in this PCT. In the Boorowa area, PCT 3376 grades into PCT 3400 which are both grassy woodlands featuring *Eucalyptus melliodora* and *Eucalyptus blakelyi*. This represents the transition from the colder environment of the tablelands (PCT 3376) to the woodlands of the lower elevation, warmer climate of the South-west Slopes (PCT 3400).
Other Diagnostic Features	
IBRA Bioregion(s)	NSW South Western Slopes; South East Corner; South Eastern Highlands; Sydney Basin;
IBRA Comments	
IBRA Sub-region(s)	Capertee Valley; Inland Slopes; South East Coastal Ranges; Bathurst; Bondo; Bungonia; Crookwell; Hill End; Monaro; Murrumbateman; Oberon; Orange; Wollemi;
NSW Landscape(s)	
LGA(s)	BATHURST REGIONAL; BLAYNEY; CABONNE; GOULBURN MULWAREE; HILLTOPS; LITHGOW CITY; MID-WESTERN REGIONAL; QUEANBEYAN-PALERANG REGIONAL; SNOWY MONARO REGIONAL; SNOWY VALLEYS; UPPER LACHLAN SHIRE; YASS VALLEY;
Elevation Min(m)	311.9
Elevation Median(m)	684.1
Elevation Max(m)	1028.1
Annual Rainfall Min(mm)	574
Annual Rainfall Median(mm)	687
Annual Rainfall Max(mm)	918
Annual Mean Temperature Min (deg.C)	10.55

Annual Mean Temperature Median(deg.C)	12.44
Annual Mean Temperature Max(deg.C)	14.06
Upper Stratum Species	
Mid Stratum Species	
Ground Stratum Species	
Diagnostic Species	
Emergent Species	
Tree Growth Form Group Species	*Eucalyptus melliodora , Eucalyptus blakelyi , Eucalyptus bridgesiana , Eucalyptus rossii , Acacia dealbata , Eucalyptus macrorhyncha , Eucalyptus mannifera , Eucalyptus rubida , Allocasuarina verticillata , Eucalyptus dives , Eucalyptus polyanthemos , Brachychiton populneus , Eucalyptus nortonii , Eucalyptus pauciflora , Eucalyptus tereticornis , Acacia decurrens , Acacia parramattensis , Allocasuarina littoralis , Eucalyptus amplifolia , Callitris endlicheri , Eucalyptus albens , Eucalyptus camaldulensis , Eucalyptus cinerea , Eucalyptus dalrympleana , Eucalyptus sieberi , Eucalyptus viminalis*
Shrub Growth Form Group Species	*Melichrus urceolatus , Lissanthe strigosa , Pimelea curviflora , Hibbertia obtusifolia , Bossiaea buxifolia , Cassinia sifton , Astroloma humifusum , Cryptandra amara , Dillwynia sericea , Acacia implexa , Acrotriche serrulata , Cassinia longifolia , Pultenaea microphylla , Acacia genistifolia , Cassinia quinquefaria , Acacia mearnsii , Daviesia genistifolia , Daviesia ulicifolia , Dodonaea viscosa , Exocarpos cupressiformis , Kunzea ericoides , Acacia deanei , Acacia rubida , Brachyloma daphnoides , Bursaria spinosa , Cassinia aculeata , Pultenaea procumbens , Rubus parvifolius , Acacia falciformis , Cassinia laevis , Daviesia leptophylla , Hibbertia riparia , Indigofera australis , Leucopogon fletcheri , Styphelia triflora , Acacia cardiophylla , Acacia dawsonii , Acacia paradoxa , Acacia ulicifolia , Acacia vestita , Calytrix tetragona , Cheiranthera linearis , Daviesia acicularis , Daviesia latifolia , Daviesia mimosoides , Dillwynia phylicoides , Hibbertia cistoidea , Hibbertia monogyna , Indigofera adesmiifolia , Leucopogon neoanglicus , Monotoca scoparia , Pultenaea ferruginea , Pultenaea subspicata , Pultenaea villosa , Rhytidosporum procumbens , Solanum linearifolium*
Grass and Grass-like Growth Form Group Species	*Austrostipa scabra , Lomandra filiformis , Microlaena stipoides , Elymus scaber , Themeda triandra , Bothriochloa macra , Panicum effusum , Poa sieberiana , Rytidosperma racemosum , Carex inversa , Aristida ramosa , Lomandra multiflora subsp. multiflora , Rytidosperma carphoides , Schoenus apogon , Juncus filicaulis , Austrostipa bigeniculata , Austrostipa densiflora , Rytidosperma auriculatum , Rytidosperma pilosum , Dichelachne micrantha , Luzula densiflora , Rytidosperma laeve , Chloris truncata , Poa labillardierei var. labillardierei , Rytidosperma erianthum , Rytidosperma pallidum , Carex breviculmis , Rytidosperma caespitosum , Enneapogon nigricans , Eragrostis benthamii , Juncus subsecundus , Aristida jerichoensis , Lepidosperma laterale , Poa meionectes , Rytidosperma monticola , Carex appressa , Cymbopogon refractus , Cynodon dactylon , Lomandra bracteata , Lomandra longifolia , Rytidosperma setaceum , Sorghum leiocladum , Austrostipa rudis , Dichelachne sieberiana , Eragrostis brownii , Eragrostis leptostachya , Rytidosperma penicillatum , Rytidosperma tenuius , Sporobolus creber , Aristida vagans , Austrostipa mollis , Bothriochloa decipiens var. decipiens , Dichanthium sericeum , Dichelachne crinita , Dichelachne rara , Digitaria brownii , Echinopogon ovatus , Eragrostis parviflora , Juncus homalocaulis , Lachnagrostis filiformis , Luzula flaccida , Rytidosperma bipartitum , Rytidosperma fulvum , Aristida behriana , Austrostipa gibbosa , Austrostipa setacea , Carex tereticaulis , Cyperus gracilis , Deyeuxia quadriseta , Dichanthium tenue , Dichelachne hirtella , Dichelachne inaequiglumis , Dichelachne parva , Eragrostis elongata , Eragrostis trachycarpa , Isolepis cernua , Juncus gregiflorus , Juncus usitatus , Luzula meridionalis , Luzula ovata , Sporobolus elongatus , Tricostularia pauciflora , Typha domingensis*
Forb Growth Form Group Species	*Hydrocotyle laxiflora , Oxalis perennans , Chrysocephalum apiculatum , Gonocarpus tetragynus , Acaena ovina , Rumex brownii , Solenogyne dominii , Tricoryne elatior , Cymbonotus lawsonianus , Hypericum gramineum , Crassula sieberiana , Geranium solanderi , Einadia nutans , Asperula conferta , Plantago varia , Triptilodiscus pygmaeus , Goodenia hederacea , Wahlenbergia communis , Vittadinia muelleri , Euchiton involucratus , Dichondra repens , Bulbine bulbosa , Daucus glochidiatus , Leptorhynchos squamatus , Vittadinia cuneata , Plantago gaudichaudii , Senecio quadridentatus , Wahlenbergia stricta , Eryngium ovinum , Acaena echinata , Arthropodium minus , Wahlenbergia gracilis , Euchiton sphaericus , Arthropodium fimbriatum , Bossiaea prostrata , Chrysocephalum semipapposum , Cotula australis , Goodenia pinnatifida , Microtis unifolia , Oxalis radicosa , Calocephalus citreus , Galium gaudichaudii , Scleranthus biflorus , Hackelia suaveolens , Dianella longifolia , Dianella revoluta , Drosera peltata , Euphorbia drummondii , Haloragis heterophylla , Leucochrysum albicans , Stackhousia monogyna ,*

	Xerochrysum viscosum , Veronica calycina , Veronica plebeia , Ajuga australis , Euchiton japonicus , Opercularia aspera , Opercularia diphylla , Oxalis exilis , Wahlenbergia luteola , Laxmannia gracilis , Lythrum hyssopifolia , Microseris lanceolata , Oreomyrrhis eriopoda , Sebaea ovata , Aphanes australiana , Burchardia umbellata , Dysphania pumilio , Epilobium billardierianum , Euphorbia dallachyana , Geranium retrorsum , Scleranthus diander , Thelymitra circumsepta , Wahlenbergia graniticola , Brachyscome rigidula , Calotis lappulacea , Cynoglossum australe , Plantago hispida , Ranunculus lappaceus , Solenogyne gunnii , Stuartina muelleri , Swainsona sericea , Vittadinia gracilis , Acaena novae-zelandiae , Alternanthera nana , Erodium crinitum , Hypoxis hygrometrica , Isoetopsis graminifolia , Oxytes brachypoda , Thysanotus tuberosus , Ammobium craspedioides , Arthropodium milleflorum , Calotis anthemoides , Calotis scabiosifolia , Coronidium scorpioides , Craspedia variabilis , Einadia hastata , Hovea linearis , Lagenophora gracilis , Microtis parviflora , Opercularia hispida , Plantago debilis , Podolepis jaceoides , Pterostylis mutica , Pterostylis nana , Stellaria pungens , Thelymitra pauciflora , Viola betonicifolia , Wahlenbergia multicaulis , Zornia dyctiocarpa var. dyctiocarpa , Alternanthera sp. A , Arthropodium strictum , Brachyscome angustifolia , Brachyscome ciliaris , Brachyscome multifida , Brachyscome ptychocarpa , Caesia parviflora , Caladenia tentaculata , Centipeda cunninghamii , Cymbonotus preissianus , Desmodium rhytidophyllum , Diuris sulphurea , Einadia trigonos , Galium ciliare , Galium leiocarpum , Gnaphalium indutum , Goodenia elongata , Hydrocotyle algida , Hydrocotyle foveolata , Isotoma axillaris , Lepidium pseudohyssopifolium , Mentha diemenica , Myriophyllum crispatum , Polygala japonica , Poranthera microphylla , Portulaca oleracea , Ranunculus pumilio , Rumex dumosus , Rutidosis leptorrhynchoides , Scutellaria humilis , Senecio diaschides , Senecio prenanthoides , Senecio tenuiflorus , Solanum pungetium , Spiranthes australis , Swainsona monticola , Urtica incisa , Velleia paradoxa , Vittadinia triloba , Wahlenbergia gracilenta , Xerochrysum bracteatum
Fern Growth Form Group Species	*Cheilanthes sieberi subsp. sieberi , Cheilanthes austrotenuifolia , Ophioglossum lusitanicum , Asplenium flabellifolium*
Other Growth Form Group Species	*Desmodium varians , Glycine tabacina , Convolvulus erubescens , Glycine clandestina , Convolvulus angustissimus , Clematis microphylla , Kennedia prostrata , Amyema pendula , Amyema miquelii , Thysanotus patersonii , Hardenbergia violacea , Glycine microphylla , Xanthorrhoea concava*
Median Native Species Richness per plot	34
Height Class (Walker and Hopkins 1990)	
Variation And Natural Disturbance	
Fire Regime	
Landscape Position	
Lithology	
Landform Pattern	
Landform Element	
Is PCT Derived?	
PCT derived from these communities	
PCT derived community comments	
Pre-European Extent	452899
Pre-European Extent Accuracy	
Pre-European Comments	Calculated from State Vegetation Type Map (SVTM) pre-clearing PCT map C1.1.M1 and Inland Multinomial Modelling. Values rounded to nearest hectare.
Current Extent	31900
Current Extent Accuracy	
Current Extent Comments	Calculated from State Vegetation Type Map (SVTM) extant PCT map C1.1.M1 and Inland Multinomial Modelling. Values rounded to nearest hectare.

PCT Percent Cleared	92.96
% accuracy (of PCT % cleared estimate)	
PCT Percent Cleared Comments	Calculated from State Vegetation Type Map (SVTM) pre-clearing and extant PCT maps C1.1.M1 and Inland Multinomial Modelling. Values are condition weighted SVTM % cleared estimates (see DPE 2022 Eastern NSW PCT % Cleared Calculation Technical notes). There may be a discrepancy between the calculated % cleared values and displayed values due to rounding.
PCT associated with TEC	Has associated TEC
TEC List	Listed BC Act,CE: White Box - Yellow Box - Blakelyâ€™s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (Part) ; Listed EPBC Act,CE: White Box-Yellow Box-Blakelyâ€™s Red Gum Grassy Woodland and Derived Native Grassland (Part) ;
TEC Comments	(Comment TEC1) Relates to the NSW White Box - Yellow Box - Blakelyâ€™s Red Gum Grassy Woodland TEC. (Comment TEC2) May relate to the Commonwealth White Box-Yellow Box-Blakelyâ€™s Red Gum Grassy Woodland TEC where it meets condition criteria as per section 4 of the Listing Advice.
Adequacy of plot sampling	None
Total Number of Replicates	187
Number of Primary Replicates	110
Number of Secondary Replicates	77
Pre-European Mapped Or Modelled	
Current Extent Mapped Or Modelled	
Classification source	
Citations	Connolly, D. et al., in prep.
Full Reference Details	Connolly, D., Binns, D., Turner, K., Hager, T., Lyons, M., Magarey, E. (in prep.) A revised classification of Plant Community Types for eastern New South Wales. NSW DPIE, Parramatta;
Profile Source	R6.97;
PCT Definition Status	Approved

Table A-4: Benchmark Data PCT 3376

Plant Community Type ID(PCT ID)	3376
Classification Confidence Level	Medium
PCT Name	Southern Tableland Grassy Box Woodland
PCT Scientific Name	
Vegetation Class	Southern Tableland Grassy Woodlands
Vegetation Formation	Grassy Woodlands
IBRA Bioregion Code	SEH
IBRA Bioregion(s)	South Eastern Highlands
Benchmark Calculation Level	Class/IBRA
PCT Benchmark Variation	monthly average, following AVERAGE RAINFALL year
Rainfall Threshold	560 - 846
Default Benchmark Condition	Yes
Tree richness	4
Shrub richness	7
Grass and grass - like richness	9
Forb richness	16
Fern richness	1
Other richness	2
Tree cover	26
Shrub cover	5
Grass and grass - like cover	35
Forb cover	9
Fern cover	0
Other cover	0
No.of large trees(per 0.1ha)	50
Litter cover	45
Total length of fallen logs	3
Large Tree Threshold Size	50
PCT Benchmarks Comments	Composition-Structure Benchmark : Class/IBRA | Function: Logs-Class; Litter-Class; Large Trees-Formation
PCT Benchmarks Reference Site	
Benchmark source	Multiple methods
Benchmark Confidence	Composition: High | Structure: Moderate | Function: Logs-Moderate; Litter-Moderate; Large Trees-Moderate
PCT Benchmark Status	Approved
PCT Definition Status	Approved

Appendix B Monitoring Plot Data

Ecological and Rehabilitation Monitoring Report 2025

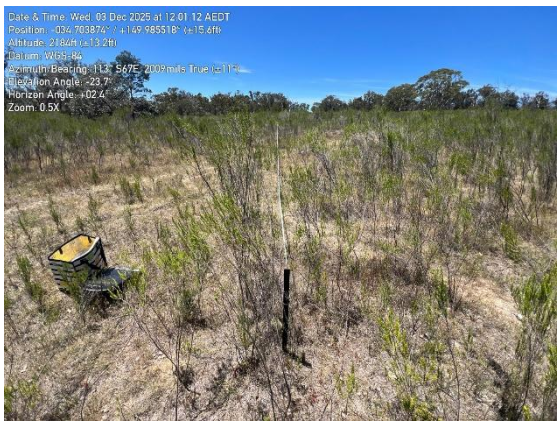
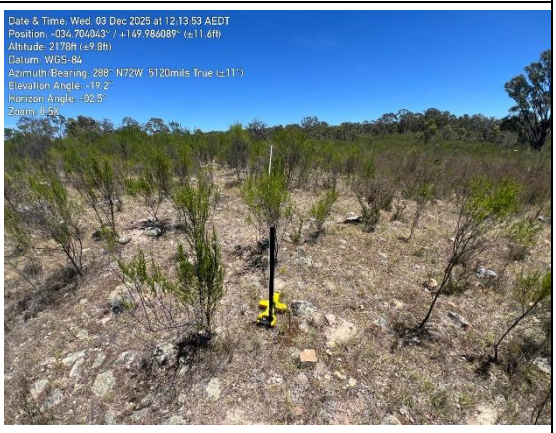
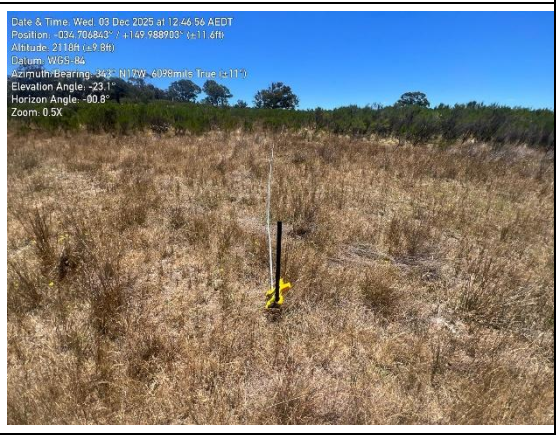
Lynwood Quarry, NSW

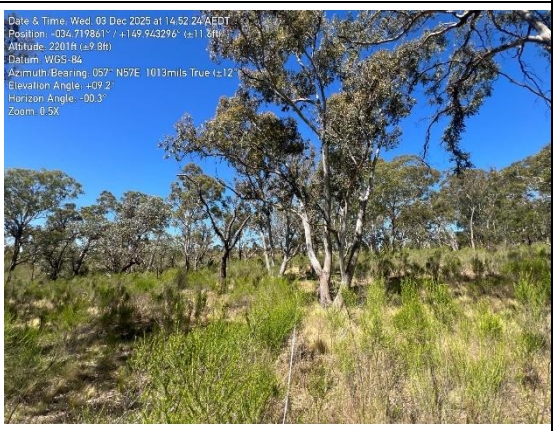
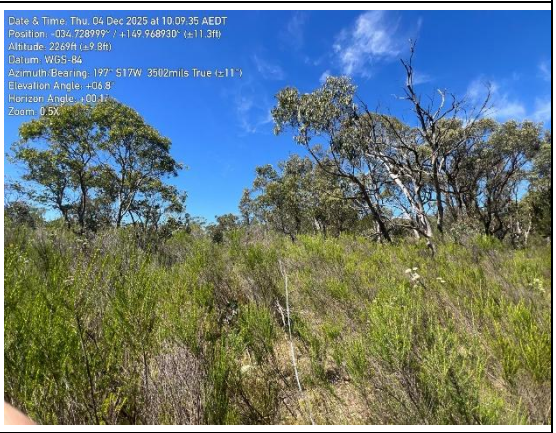
Holcim Australia Pty Ltd

SLR Project No.: 630.031740.00002

14 May 2026

Table B-1: Photo data for 2025

Site	Start Transect	End Transect
RM1		
RM2		
RM3		

Site	Start Transect	End Transect
RM5		
BG1		
BG2		
CR1		

Site	Start Transect	End Transect
CR2		

Table B-2: Flora cover data for 2025

Growth Form/ High Threat Weed (HTW)	Scientific Name	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Tree	*Acacia dawsonii*	1	0	0	0	0	0	0	0
Shrub	*Acacia mearnsii*	40	0	0	0	0	0	0	0
Tree	*Acacia melanoxylon*	5	0	0	0	0	0	0	0
Tree	*Acacia parramattensis*	0	0	0	0	0	0	5	10
Shrub	*Acacia ulicifolia*	0.2	0	0	0	0	0	0	0
Non-HTW	*Aira caryophyllea*	0	0	0	0	0	1	0	0
Non-HTW	*Aira cupaniana*	0	1	0.2	0	0	0	0	0.1
Tree	*Allocasuarina littoralis*	0	0	0	0	0	5	0	10
Other	*Amyema miquelii*	0	0	0	0	0	0	0	0.2
Non-HTW	*Anthoxanthum odoratum*	20	0	0	50	0	15	40	1
Grass and grasslike	*Aristida vagans*	0	0.5	0	0	0	0	0	0
Forb	*Arthropodium fimbriatum*	0	0	0	0	2	0	0	0
Shrub	*Astroloma humifusum*	0	2	0	0	0	0	0	0
Grass and grasslike	*Austrostipa densiflora*	0	10	0	0	10	0	0	0
Grass and grasslike	*Austrostipa pubescens*	0	10	0	0	0	0.1	0	0
Grass and grasslike	*Austrostipa scabra* subsp. *falcata*	2	0	0	0	5	5	0	5
Non-HTW	*Avena fatua*	0	0	0	0	0	0	2	0
Grass and grasslike	*Bothriochloa macra*	1	1	0	0	0	0	0	0
Non-HTW	*Briza maxima*	0	0	0	0	0	0	0	0.1
Non-HTW	*Briza minor*	0	0.1	0	1	0.1	0.1	0	0
HTW	*Bromus diandrus*	1	0	0	0	0	0	0	1
Non-HTW	*Bromus molliformis*	0	0	0	0	0.1	0	0	0
Grass and grasslike	*Carex appressa*	0	0	0	0	0	0	0	0.2

Growth Form/ High Threat Weed (HTW)	Scientific Name	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Shrub	*Cassinia aculeata*	0	1	0	0	0	15	0	0
Shrub	*Cassinia sifton*	0	40	20	30	40	25	0.1	30
Non-HTW	*Centaurium erythraea*	0	0.3	0.1	0.1	0	0.1	0	0
Non-HTW	*Cerastium glomeratum*	0	0	0	0	0	0	0	0.2
Fern	*Cheilanthes sieberi*	0	0	0	0.1	0	0	0	0
Grass and grasslike	*Chloris ventricosa*	3	0	0	0	0	0	0	0
Forb	*Chrysocephalum apiculatum*	0	0.1	0	0	0	0	0	0
Non-HTW	*Cirsium vulgare*	0	0	0	0	0	0	0.1	0
Non-HTW	*Conyza bonariensis*	0.1	0	0	0	0	0	0	0
Grass and grasslike	*Cymbopogon refractus*	2	0	0	0	0	0	0	0
Grass and grasslike	*Cynodon dactylon*	2	0	0	0	0	0	0	0
Non-HTW	*Cyperus congestus*	0	0	0	0	0	0	1	0.1
Forb	*Cyperus gracilis*	0	0	0	0	0.1	0	0	0
Forb	*Dianella revoluta*	0	0	0	0	0	0	0	0.1
Non-HTW	*Echium plantagineum*	0	0	0	0	0	0	0	0.1
HTW	*Ehrharta erecta*	0	0	0	0	0	0	0	0.1
Grass and grasslike	*Eragrostis benthamii*	0	0	0.1	0	0	0	0	0
Forb	*Erodium crinitum*	0.2	0	0	0	0	0	0	0
Tree	*Eucalyptus agglomerata*	0	0	0	0	0	10	0	0
Tree	*Eucalyptus blakelyi*	1	0	0	0	2	15	0	25
Tree	*Eucalyptus bridgesiana*	5	0	0	0	5	0	0	0
Tree	*Eucalyptus cinerea*	0	0	0	0	0	1	0	0
Tree	*Eucalyptus macrorhyncha*	0	0	0	0	0	5	0	0
Tree	*Eucalyptus melliodora*	0	0.1	0	0	2	0	0	0
Tree	*Eucalyptus sieberi*	1	0	0	0	0	1	0	0
Forb	*Euchiton involucratus*	0	1	0	0.2	0	0	0	0
Non-HTW	*Galium aparine*	0	0	0	0	0	0	0	0.1
Non-HTW	*Gamochaeta calviceps*	0.1	0	0	0	0	0	0	0
Non-HTW	*Gamochaeta coarctata*	0	0	1	0	0	0	0	0
Non-HTW	*Gamochaeta purpurea*	0	0.1	0	0	0.1	0	0	0
Forb	*Geranium solanderi*	0.5	0	0	0	0	0	3	0
Forb	*Gonocarpus tetragynus*	0	10	0	0	0	5	0	0
Forb	*Goodenia hederacea*	0	5	0	0	2	0.1	0	0
Non-HTW	*Holcus lanatus*	0	0	15	0	0	0	15	0.1
Forb	*Hydrocotyle sibthorpioides*	0	0	0	1	4	0	0	5
Forb	*Hypericum gramineum*	0	0.2	0	0	1	0	0	0
HTW	*Hypericum perforatum*	0	0	1	0	0.1	0	0	0.1
Non-HTW	*Hypochaeris radicata*	1	0.2	4	0.1	1	0.1	2	0

Growth Form/ High Threat Weed (HTW)	Scientific Name	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Grass and grasslike	*Juncus homalocaulis*	0	0	0	0	0	0	0	0.2
Grass and grasslike	*Juncus usitatus*	0	1	20	1	2	4	5	1
Grass and grasslike	*Juncus vaginatus*	0	0	0	0	0	2	0	0
Shrub	*Kunzea parvifolia*	0	1	0	0.1	0	0	0	0
Grass and grasslike	*Lachnagrostis filiformis*	0	0.1	0	0	0	0	0	0
Non-HTW	*Lepidium africanum*	0	0	0	0	0.1	0	0	0
Shrub	*Lissanthe strigosa*	0	0	0	0	5	0	0.1	0
Non-HTW	*Lolium perenne*	5	0	0	0	0	0	0.1	0
Grass and grasslike	*Lomandra multiflora*	0	0	0	0	5	1	0	0
Grass and grasslike	*Microlaena stipoides*	0	1	5	5	10	1	0	20
Forb	*Microtis unifolia*	0	0.2	0	0.1	0	0.1	0	0
Non-HTW	*Modiola caroliniana*	2	0	0	0	0	0	0	0
HTW	*Nassella trichotoma*	4	2	0	0	10	0	0.1	5
Shrub	*Olearia viscidula*	0	0	0	0	0	0	0	4
Forb	*Opercularia diphylla*	0	0	0	0	2	0	0	0
Non-HTW	*Paronychia brasiliana*	0.1	0	0	0	0.1	0	0	0.2
Non-HTW	*Petrorhagia dubia*	0	0	0	0	0	0	0	0.1
Non-HTW	*Petrorhagia nanteuilii*	0	0	0	0	0.1	0	0	0
Forb	*Pimelea curviflora var. sericea*	0	0	0	0	0.1	0	0	0
Forb	*Plantago gaudichaudii*	0	0	0	0	0.2	0	0	0
Non-HTW	*Plantago lanceolata*	0.1	0	0	0	0.1	0	2	0.1
Non-HTW	*Polygonum aviculare*	0.1	0	0	0	0	0	0	0
Non-HTW	*Richardia stellaris*	0	0.1	0	0	0	0	0	0
HTW	*Rubus anglocandicans* (in *Rubus fruticosus L. complex*)	0	0	0	0	0	0	10	2
HTW	*Rumex acetosella*	2	0	2	0	0	0	3	3
Non-HTW	*Rumex crispus*	0	0	0	0	0	0	2	0
Grass and grasslike	*Rytidosperma fulvum*	0	2	1	0	0.2	0	0	0
Grass and grasslike	*Rytidosperma racemosum*	0	0	0	0	0	0	0.1	5
Grass and grasslike	*Rytidosperma tenuius*	1	0	0	0	0	0	0	0
Forb	*Senecio linearifolius var. denticulatus*	0	0	0	0	0	0	0	1
Non-HTW	*Sonchus asper*	0	0	0	0	0	0	0.1	0
Non-HTW	*Sonchus olearceus*	0	0	0	0	0	0	0	0.1

Growth Form/ High Threat Weed (HTW)	Scientific Name	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Grass and grasslike	*Themeda triandra*	0	0	0	0	5	0	0	0
Forb	*Tricoryne elatior*	0	0	0	0	0.1	0	0	0
Non-HTW	*Trifolium glomeratum*	0	0	0	0	0	0	0	0.1
Non-HTW	*Trifolium subterraneum*	0.1	0	0	0	0	0	0	0
Non-HTW	*Verbena bonariensis*	0	0	0	0	0	0	0	0.2
Forb	*Veronica plebeia*	0	0	0	0	0	0.1	0	1
Non-HTW	*Vulpia bromoides*	3	0	2	0	5	0.1	0	1
Non-HTW	*Vulpia myuros*	0	2	0	0	0	0	0	0
Forb	*Wahlenbergia communis*	0	0	0	0	2	0	0	0
Forb	*Wahlenbergia gracilis*	0.1	0	0	0.1	0	0	0	0

Table B-3: Tree stem data for 2025

DBH (cm)	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
>80	0	0	0	0	3	1	0	2
50 to 79	0	0	0	0	1	1	0	3
30 to 49	0	0	0	0	1	1	1	7
20 to 29	0	0	0	0	0	3	0	3
10 to 19	0	0	0	0	0	8	0	3
5 to 9	1	0	0	0	1	4	0	5
Tree stem <5cm DBH	23	5	1	0	1	133	11	22
No Large Trees (>50cm DBH)	0	0	0	0	4	2	0	5

Table B-4: Litter data for 2025

Transect interval	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Litter cover (%) at 5m	0	0	0	0	25	10	0	10
Litter cover (%) at 15m	2	1	0	0	25	30	1	20
Litter cover (%) at 25m	2	0	0	0	40	50	0	75
Litter cover (%) at 35m	5	0	0	0	20	40	1	25
Litter cover (%) at 45m	2	0	0	0	40	40	0	25
Average Litter cover (%)	2.2	0.2	0	0	30	34	0.4	31

Table B-5: Log length data for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Log Length (m)	0	0	0	0	55	0	10	23

Table B-6: Fauna and General observation data for 2025

Site	Fauna observations	General observation notes
RM1	P-Kangaroo, O-Sheep, O-Welcome	• Natural regeneration not occurring but tube stock <5cm and seeding evident. No planting required.

Site	Fauna observations	General observation notes
	Swallow, O-Nankeen Kestrel, O-Eastern Rosella, O-Galah, O-Magpie, O-Spotted Pardalote	• Native species cover and diversity improving. • General health moderate to good, Acacias appear to have disease. • Weed occurrence is high within the ground layer. • Threatened/significant species not recorded. • Feral animals not recorded. • Minor erosion present (sheeting/rilling). • Fuel management not required at this location. • Disturbance signs not recorded. • No recent site management noted, but previous planting/seeding evident.
RM2	P-Kangaroo, O-Masked Lapwing, O-Pied Currawong	• Limited natural regeneration present. Planting recommended. • Native species cover and diversity limited in canopy. • General health is moderate, but species diversity appears to be low in open areas. • Weed occurrence is low and has reduced. • Threatened/significant species not recorded. • Feral animals not noted. • Erosion was not noted. • Fuel management not required at this location. • Disturbance signs not recorded, though driving track present through plot. • No recent site management noted.
RM3	O-Eastern Grey Kangaroo, O-Pied Currawong	• Limited natural regeneration present. Planting recommended. • Native species cover and diversity limited in canopy. • General health of the vegetation is moderate. • Weed occurrence is moderate, weeds noted within groundcover. • Threatened/significant species not recorded. • Feral animals not recorded. • Erosion not recorded. • Fuel management not required at this location. • Disturbance signs not recorded. • No recent site management noted.
RM5	O-Eastern Grey Kangaroo	• Limited natural regeneration present. Planting recommended. • Native species cover and diversity limited in canopy. • General health is poor and limited to shrub layer • Weed occurrence is moderate, weeds noted within groundcover. • Threatened/significant species not recorded. • Feral animals not recorded. • Erosion not recorded. • Fuel management not required at this location. • Disturbance signs including track cleared through plot. • No recent site management noted.
BG1	OW-Rufous Whistler, O-Magpie	• Natural regeneration present, but very little. Planting not required. • Native species cover and diversity noted as good across all layers. • General health is good. • Weeds occur in ground layer, increased cover of Tussock Grass • Threatened/significant species not recorded. • Feral animals not recorded. • Erosion not recorded. • Fuel management not required at this location. • Disturbance signs not recorded. • Site management not recorded.

Site	Fauna observations	General observation notes
BG2	O-Noisy Friarbird	• Natural regeneration present, significant eucalypt regeneration noted. Planting not required. • Native species cover and diversity good across all layers. • General health of vegetation is good with high levels of regeneration occurring. • Weed occurrence is minor. • Threatened/significant species not recorded. • Feral animals not recorded. • Erosion not recorded. • Fuel management not required at this location. • Disturbance signs not recorded. • Site management not recorded.
CR1	P-Kangaroo, O-Superb Fairywren	• Limited natural regeneration present. Planting recommended. • Native species cover and diversity low across all layers. • General health of the vegetation is poor-moderate. • Weeds have increased including Blackberry. • Threatened/significant species not recorded. • Feral animals were not recorded. • Erosion was noted including minor bank erosion. • Fuel management not required at this location. • Disturbance signs not recorded. • Site management not recorded.
CR2	P-Kangaroo, O-Dark-flecked Garden Sunskink, W-Spotted Pardalote	• Natural regeneration present. Creek line could benefit from weed removal and planting in areas. • Native species cover and diversity generally good across all layers. • General health of vegetation is good with regeneration and some weeds. • Weeds remain including Blackberry and Serrated Tussock Grass, although evidence of spraying was seen. • Threatened/significant species not recorded. • Feral animals not recorded. • Erosion observed at the creek near the plot. • Fuel management not required at this location. • Disturbance signs not recorded. • Site management includes weed control.

Table B-7: Species Richness analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Tree	5.0	1.0	0.0	0.0	3.0	6.0	1.0	3.0
Shrub	2.0	4.0	1.0	2.0	2.0	2.0	2.0	2.0
Grass and grasslike	6.0	8.0	4.0	2.0	7.0	6.0	2.0	6.0
Forb	3.0	6.0	0.0	4.0	10.0	4.0	1.0	4.0
Fern	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
HTW	3.0	1.0	2.0	0.0	2.0	0.0	3.0	6.0
Non-HTW	11.0	7.0	6.0	4.0	9.0	6.0	10.0	15.0
TOTAL WEED SPECIES	14.0	8.0	8.0	4.0	11.0	6.0	13.0	21.0

Table B-8: Species Cover analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Tree	13.0	0.1	0.0	0.0	9.0	37.0	5.0	45.0
Shrub	40.2	44.0	20.0	30.1	45.0	40.0	0.2	34.0
Grass and grasslike	11.0	25.6	26.1	6.0	37.2	13.1	5.1	31.4
Forb	0.8	16.5	0.0	1.4	13.5	5.3	3.0	7.1
Fern	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
HTW	7	2	3	0	10.1	0.0	13.1	11.2
Non-HTW	31.6	3.8	22.3	51.2	6.7	16.4	64.3	3.6
TOTAL WEED SPECIES	38.6	5.8	25.3	51.2	16.8	16.4	77.4	14.8

Table B-9: Target Species Richness analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Target PCT	3376	3376	3376	3373	3376	3376	3376	3376
Tree	4	1	0	0	3	4	1	3
Shrub	2	4	1	2	2	2	2	2
Grass and grasslike	4	5	3	2	6	4	2	4
Forb	2	6	0	4	9	4	1	3
Fern	0	0	0	1	0	0	0	0
Other	0	0	0	0	0	0	0	1

Table B-10: Target Species Cover analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Target PCT	3376	3376	3376	3373	3376	3376	3376	3376
Tree	12	0.1	0	0	9	26	5	45
Shrub	40.2	44	20	30.1	45	40	0.2	34
Grass and grasslike	6	13.5	25.1	6	37	11	5.1	31
Forb	0.6	16.5	0	1.4	13.4	5.3	3	6.1
Fern	0	0	0	0.1	0	0	0	0
Other	0	0	0	0	0	0	0	0.2

Table B-11: Proportion of Target Species Richness analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Target PCT	3376	3376	3376	3373	3376	3376	3376	3376
Tree	80.0	100.0	0	0	100.0	66.7	100.0	100.0
Shrub	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grass and grasslike	66.7	62.5	75.0	100.0	85.7	66.7	100.0	66.7
Forb	66.7	100.0	0	100.0	90.0	100.0	100.0	75.0
Fern	0	0	0	100.0	0	0	0	0
Other	0	0	0	0	0	0	0	100.0

Table B-12: Proportion of Target Species Cover analysis for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
Target PCT	3376	3376	3376	3373	3376	3376	3376	3376
Tree	92.3	100.0	0	0	100.0	70.3	100.0	100.0
Shrub	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grass and grasslike	54.5	52.7	96.2	100.0	99.5	84.0	100.0	98.7
Forb	75.0	100.0	0	100.0	99.3	100.0	100.0	85.9
Fern	0	0	0	100.0	0	0	0	0
Other	0	0	0	0	0	0	0	100.0

Table B-13: VI score data for 2025

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
pct	3376	3376	3376	3373	3376	3376	3376	3376
area	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
patchsize	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
conditionclass	RM1_25	RM2_25	RM3_25	RM5_25	BG1_25	BG2_25	CR1_25	CR2_25
zone	56	56	56	56	56	56	56	56
easting	769915	773465	773742	771707	769577	771852	771326	773063
northing	6157908	6155743	6155457	6153029	6154113	6152990	6154954	6153023
bearing	0	0	0	0	0	0	0	0
compTree	5	1	0	0	3	6	1	3
compShrub	2	4	1	2	2	2	2	2
compGrass	6	8	4	2	7	6	2	6
compForbs	3	6	0	4	10	4	1	4
compFerns	0	0	0	1	0	0	0	0
compOther	0	0	0	0	0	0	0	1
strucTree	13	0.1	0	0	9	37	5	45
strucShrub	40.2	44	20	30.1	45	40	0.2	34
strucGrass	11	25.6	26.1	6	37.2	13.1	5.1	31.4
strucForbs	0.8	16.5	0	1.4	13.5	5.3	3	7.1
strucFerns	0	0	0	0.1	0	0	0	0
strucOther	0	0	0	0	0	0	0	0.2
funLargeTrees	0	0	0	0	4	2	0	5
funHollowtrees	0	0	0	0	0	0	0	0
funLitterCover	2.2	0.2	0	0	30	34	0.4	31
funLenFallenLogs	0	0	0	0	55	0	10	23
funTreeStem5to9	1	0	0	0	1	4	0	5
funTreeStem10to19	0	0	0	0	0	8	0	3
funTreeStem20to29	0	0	0	0	0	3	0	3
funTreeStem30to49	0	0	0	0	1	1	1	7
funTreeStem50to79	0	0	0	0	1	1	0	3
funTreeRegen	23	5	1	0	1	133	11	22

	RM1	RM2	RM3	RM5	BG1	BG2	CR1	CR2
funHighThreatExotic	7	2	3	0	10.1	0	13.1	11.2

Table B-14: BAM-C Outputs

Category	Plot	Year	Composition Score	Structure Score	Function Score	Vegetation Integrity Score
Rehabilitation	RM1	2021	3	1.5	0	0.6
Rehabilitation	RM1	2022	0.2	1.3	0	0.2
Rehabilitation	RM1	2023	27.9	7	30	18
Rehabilitation	RM1	2024	29.8	10.1	30	20.8
Rehabilitation	RM1	2025	36.3	38.7	2.2	14.6
Rehabilitation	RM2	2021	38.7	22	15.1	23.4
Rehabilitation	RM2	2022	38.2	21.4	15.3	23.2
Rehabilitation	RM2	2023	37.9	29.4	15	25.6
Rehabilitation	RM2	2024	54.2	54.1	30	44.5
Rehabilitation	RM2	2025	51.4	60.9	0	14.6
Rehabilitation	RM3	2021	23.2	35.3	0	2.7
Rehabilitation	RM3	2022	19.6	47.3	0.5	7.6
Rehabilitation	RM3	2023	7.3	53.3	13.3	17.3
Rehabilitation	RM3	2024	8.2	20.4	30	17.1
Rehabilitation	RM3	2025	11.9	49.4	15	20.7
Rehabilitation	RM5	2021	43.4	53.5	0.2	7.1
Rehabilitation	RM5	2022	36.1	58.6	0.2	7.5
Rehabilitation	RM5	2023	20.5	10	15	14.5
Rehabilitation	RM5	2024	26.9	22.4	15	20.8
Rehabilitation	RM5	2025	14.6	10	0	5.3
Box Gum	BG1	2021	60.1	80.4	58.8	65.8
Box Gum	BG1	2022	66.7	70.6	25.3	49.2
Box Gum	BG1	2023	70.4	13.4	86.8	43.4
Box Gum	BG1	2024	59.7	63.5	64.5	62.5
Box Gum	BG1	2025	67.1	75.7	91.5	77.5
Box Gum	BG2	2021	63.7	51.1	44.9	52.7
Box Gum	BG2	2022	69.1	41.4	43.9	50.1
Box Gum	BG2	2023	38.4	27.5	54.7	38.7
Box Gum	BG2	2024	41.4	54.6	43.8	46.2
Box Gum	BG2	2025	39.2	66.6	45.5	49.2
Core Riparian	CR1	2022	8.7	13.7	18.3	13
Core Riparian	CR1	2023	5.9	12.1	38.2	14
Core Riparian	CR1	2024	8.7	25.3	17.4	15.7
Core Riparian	CR1	2025	7.8	7.9	3.9	6.2
Core Riparian	CR2	2022	43.3	78.7	31	47.3
Core Riparian	CR2	2023	46.9	88	82.7	69.9
Core Riparian	CR2	2024	62.2	88.7	85.8	77.9

Category	Plot	Year	Composition Score	Structure Score	Function Score	Vegetation Integrity Score
Core Riparian	CR2	2025	41.4	98.6	58.3	62

Appendix C Nestbox Inventory

Ecological and Rehabilitation Monitoring Report 2025

Lynwood Quarry, NSW

Holcim Australia Pty Ltd

SLR Project No.: 630.031740.00002

14 May 2026

Table A-15: Result of Nest Box Inspection

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
HMA-11-1	Parrot	N	Y	N	N	N	N	Chew marks, Leaf litter	15:22
HMA-11-2	Possum	N	Y	N	N	N	N	Leaf litter	15:16
HMA-11-3	Owlet Nightjar	Y	Y	N	N	N	Y	Glider, Chew marks. Leaf nest. Wood separation near top of box	15:10
HMA-11-4	Squirrel Glider	Y	Y	N	N	N	N	2x Gliders, Leaf nest.	15:04
HMA-11-5	Microbat	N	N	N	N	N	N	Spiderweb	15:30
HMA-11-6	Small Salvaged Hollow	N	N	N	N	N	Y	Empty Two entrances, one entrance needs to be capped	15:05
HMA-11-7	Small Salvaged Hollow	N	N	N	N	N	Y	Empty Two entrances, one entrance needs to be capped	15:31
HMA-11-8	Medium Salvaged Hollow	N	N	N	N	N	Y	Empty. Broken binding, two entrances, one entrance needs to be capped	15:14
HMA-11-9	Small Salvaged Hollow	N	N	N	N	N	N	Empty	15:21
HMA-11-10	Small Salvaged Hollow	N	N	N	N	N	N	Empty	15:18
HMA-12-1	Possum	N	Y	N	N	N	N	Chew marks, Leaf litter	9:31
HMA-12-2	Small Salvaged Hollow	N	N	N	N	N	Y	Leaf litter. Crack on bottom	9:30
HMA-12-3	Owlet Nightjar	N	Y	N	N	N	N	Chew marks. Leaf nest (old).	9:26

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
HMA-12-4	Medium Salvaged Hollow	N	Y	N	N	N	N	Leaf litter	9:27
HMA-12-5	Microbat	N	N	N	N	N	N	Empty	9:15
HMA-12-6	Small Salvaged Hollow	N	N	N	N	N	Y	Empty. Broken binding, two entrances, one entrance needs to be capped	9:09
HMA-12-7	Parrot	N	Y	N	N	N	N	Chew marks. Leaf litter.	9:23
HMA-12-8	Small Salvaged Hollow	N	N	N	N	N	Y	Fallen off tree – box could not be found	9:24
HMA-12-9	Squirrel Glider	N	Y	N	N	N	N	Leaf litter Signs of wear on outside	9:20
HMA-12-10	Small Salvaged Hollow	N	N	N	N	N	Y	Empty Two entrances, one entrance needs to be capped	9:19
HMA-13-1	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest.	10:01
HMA-13-2	Possum	N	Y	N	N	N	Y	Leaf litter. Missing Roof	9:58
HMA-13-3	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter	10:03
HMA-13-4	Microbat	N	N	N	N	N	N	Old wasp nest	10:11
HMA-13-5	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter.	10:17
HMA-13-6	Owlet Nightjar	N	Y	N	N	N	N	Chew marks, leaf nest.	10:15
HMA-13-7	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest..	10:29
HMA-13-8	Parrot	N	Y	N	N	N	N	Chew marks, old leaf nest	10:31

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
								Early signs of wear on outside	
HMA- 13-9	Squirrel Glider	Y	Y	N	Y	N	N	3x Gliders - 1 adult and 2 juvenile, leaf nest	10:23
HMA-13-10	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter.	10:21
HMA-14-1	Microbat	N	N	N	N	N	N	Empty	10:48
HMA-14-2	Small Salvaged Hollow	N	N	N	N	N	N	Empty	10:53
HMA-14-3	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter.	10:40
HMA-14-4	Small Salvaged Hollow	N	N	N	N	N	N	Empty	10:43
HMA-14-5	Parrot	N	Y	N	N	N	N	Chew marks, leaf litter.	10:55:07
HMA-14-6	Medium Salvaged Hollow	N	N	N	N	N	N	Empty	10:55:58
HMA-14-7	Possum	N	Y	N	N	N	N	Shell fragments Signs of wear on outside	10:58
HMA-14-8	Medium Salvaged Hollow	N	N	N	N	N	N	Empty	11:00
HMA-14-9	Owlet Nightjar	N	Y	N	N	N	N	Leaf litter Signs of wear on outside	11:05
HMA-14-10	Medium Salvaged Hollow	N	Y	N	N	N	N	Leaf litter	11:03
HMA-15-1	Microbat	N	N	N	N	N	Y	Empty Wood splitting on side	11:28
HMA-15-2	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	11:27
HMA-15-3	Owlet Nightjar	N	Y	N	N	N	N	Leaf litter	11:26

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
								Signs of wear on outside	
HMA-15-4	Squirrel Glider	N	Y	N	N	N	Y	Leaf litter Missing lid	11:22
HMA-15-5	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest	11:15
HMA-15-6	Microbat	N	N	N	N	N	N	Empty	11:17
HMA-15-7	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest	11:20
HMA-15-8	Squirrel Glider	Y	Y	N	N	N	N	4x Gliders, chew marks, leaf nest Signs of wear on outside	11:21
HMA-15-9	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter	11:13
HMA-15-10	Possum	N	Y	N	N	N	N	Leaf litter Signs of wear on outside	11:12
HMA-16-1	Parrot	N	Y	N	N	N	N	Chew marks, old leaf nest	13:13
HMA-16-2	Squirrel Glider	Y	N	N	N	N	N	1x Owlet Nightjar, chew marks	13:14
HMA-16-3	Squirrel Glider	N	Y	N	N	N	N	Leaf nest	12:57
HMA-16-4	Possum	N	Y	N	N	N	N	Chew marks	13:00
HMA-16-5	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest	12:48
HMA-16-6	Owlet Nightjar	N	Y	N	N	N	Y	Chew marks, leaf litter Damage to entrance	12:50
HMA-16-7	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	13:02
HMA-16-8	Squirrel Glider	Y	Y	N	N	N	N	2x Gliders, chew marks, leaf nest	13:03
HMA-16-9	Squirrel Glider	N	Y	N	N	N	N	Old leaf litter	12:45
HMA-16-10	Possum	N	N	N	N	N	N	Chew marks, empty	12:46

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
HMA-16-11	Squirrel Glider	N	Y	N	N	N	N	Leaf nest	12:51
HMA-16-12	Parrot	N	N	N	N	N	N	Chew marks, feather	12:52
HMA-16-13	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest Signs of wear on outside	12:42
HMA-16-14	Owlet Nightjar	N	Y	N	N	N	N	Chew marks, old leaf nest	12:40
HMA-16-15	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	12:38
HMA-16-16	Microbat	N	N	N	N	N	N	Empty	12:39
HMA-16-17	Squirrel Glider	N	Y	N	N	N	N	Leaf nest	12:53
HMA-16-18	Parrot	N	N	N	N	N	N	Chew marks, leaf litter Early signs of wear on outside	12:54
HMA-16-19	Squirrel Glider	N	Y	N	N	N	Y	Chew marks, leaf nest Roof hinge loose	13:08
HMA-16-20	Microbat	N	N	N	N	N	N	Empty Signs of wear on outside	13:10
HMA-17-1	Squirrel Glider	Y	Y	N	N	N	N	1x Glider, chew marks, leaf nest	13:29
HMA-17-2	Microbat	N	N	N	N	N	N	Empty	13:30
HMA-17-3	Squirrel Glider	N	Y	N	N	N	N	Leaf litter	13:23
HMA-17-4	Possum	N	Y	N	N	N	N	Chew marks, leaf litter, shell fragments	13:24
HMA-17-5	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	13:21a
HMA-17-6	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	13:21b
HMA-17-7	Squirrel Glider	N	Y	N	N	N	N	Chew marks, old leaf nest	13:33

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
HMA-17-8	Parrot	N	N	N	N	N	N	Chew marks, empty	13:34
HMA-17-9	Squirrel Glider	Y	Y	N	N	N	N	2X Gliders, leaf nest Wear on outside	13:37
HMA-17-10	Owlet Nightjar	N	Y	N	N	N	N	Chew marks, leaf litter	13:36
HMA-18-1	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf nest	13:46
HMA-18-2	Owlet Nightjar	N	Y	N	N	N	N	Chew marks, stick nest	13:47
HMA-18-3	Squirrel Glider	N	Y	N	N	N	N	Stick nest	13:51
HMA-18-4	Possum	N	N	N	N	N	N	Empty	13:52
HMA-18-5	Squirrel Glider	N	Y	N	N	N	N	Stick nest	13:56
HMA-18-6	Squirrel Glider	N	Y	N	N	N	N	Chew marks, leaf litter	13:54
HMA-18-7	Squirrel Glider	N	Y	N	N	N	N	Leaf nest Signs of wear on outside	13:58
HMA-18-8	Microbat	N	N	N	N	N	N	Empty Signs of wear on outside	13:59
HMA-18-9	Squirrel Glider	N	Y	N	N	N	N	Leaf nest	14:02
HMA-18-10	Parrot	N	Y	N	N	N	N	Leaf litter Signs of wear on outside	14:04
HMA-19-1	Possum	Y	Y	N	N	N	N	1x Brushtail Possum, leaf nest	12:22
HMA-19-2	Squirrel Glider	N	N	N	N	N	N	Leaf litter	12:24
HMA-19-3	Owlet Nightjar	Y	Y	N	N	N	N	3x Gliders, leaf nest	12:32
HMA-19-4	Parrot	N	N	N	N	N	N	Leaf litter Signs of wear on outside	12:28

Box ID	Box Type	Native Fauna Occupancy (Y/N)				Pests (Y/N)	Repair (Y/N)	Comment (species present, signs of use, repair etc.)	Media Reference
		Fauna	Nest	Eggs	Young				
HMA-19-5	Squirrel Glider	N	Y	N	N	N	N	Old stick nest	12:27
HMA-19-6	Small Salvaged Hollow	N	N	N	N	N	N	Empty	12:26
HMA-19-7	Small Salvaged Hollow	N	N	N	N	N	N	Empty	12:30
HMA-19-8	Medium Salvaged Hollow	N	N	N	N	N	N	Empty	12:31
HMA-19-9	Medium Salvaged Hollow	N	Y	N	N	N	N	Old leaf nest	12:19
HMA-19-10	Medium Salvaged Hollow	N	N	N	N	N	N	Empty	12:17

Table A-2: Photograph Thumbnails of Nest Box Inspections

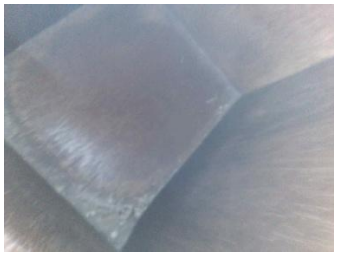
				
HMA-11-1	HMA-11-2	HMA-11-3	HMA-11-4	HMA-11-5
				
HMA-11-6	HMA-11-7	HMA-11-8	HMA-11-9	HMA-11-10
				
HMA-12-1	HMA-12-2	HMA-12-3	HMA-12-4	HMA-12-5

				
HMA-12-6	HMA-12-7	HMA-12-8	HMA-12-9	HMA-12-10
				
HMA-13-1	HMA-13-2	HMA-13-3	HMA-13-4	HMA-13-5
				
HMA-13-6	HMA-13-7	HMA-13-8	HMA-13-9	HMA-13-10

				
HMA-14-1	HMA-14-2	HMA-14-3	HMA-14-4	HMA-14-5
				
HMA-14-6	HMA-14-7	HMA-14-8	HMA-14-9	HMA-14-10
				
HMA-15-1	HMA-15-2	HMA-15-3	HMA-15-4	HMA-15-5

				
HMA-15-6	HMA-15-7	HMA-15-8	HMA-15-9	HMA-15-10
				
HMA-16-1	HMA-16-2	HMA-16-3	HMA-16-4	HMA-16-5
				
HMA-16-6	HMA-16-7	HMA-16-8	HMA-16-9	HMA- 16-10

				
HMA-16-11	HMA-16-12	HMA-16-13	HMA-16-14	HMA-16-15
				
HMA-16-16	HMA-16-17	HMA-16-18	HMA-16-19	HMA-16-20
				
HMA-17-1	HMA-17-2	HMA-17-3	HMA-17-4	HMA-17-5

				
HMA-17-6	HMA-17-7	HMA-17-8	HMA-17-9	HMA-17-10
				
HMA-18-1	HMA-18-2	HMA-18-3	HMA-18-4	HMA-18-5
				
HMA-18-6	HMA-18-7	HMA-18-8	HMA-18-9	HMA-18-10

				
HMA-19-1	HMA-19-2	HMA-19-3	HMA-19-4	HMA-19-5
				
HMA-19-6	HMA-19-7	HMA-19-8	HMA-19-9	HMA-19-10

Appendix D Assessment of Completion Criteria

Ecological and Rehabilitation Monitoring Report 2025

Lynwood Quarry, NSW

Holcim Australia Pty Ltd

SLR Project No.: 630.031740.00002

14 May 2026

Table D-1: Assessment of Revegetated Areas Preliminary Completion Criteria (applies to the Amenity Bund i.e. RM1)

Area	Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
Planting or direct seeding areas	Vegetation has been established at the revegetation area and there are no additional works required to be undertaken to assist to meet the requirements of the rehabilitation management plan or any other management plan.	Ground cover comparable to surrounding environment and the establishment of revegetation is such that it no longer requires attention to assure its successful development (>3 years of growth).	Monitor annually until condition criteria achieved.	On track. Native vegetation was planted at the western side of Amenity Bund in 2022. Ground cover improvement (such as grass and herb planting of species from Box Gum Woodland) is recommended. Ensure whole western side of amenity bund is sufficiently planted.
Amenity Bund and emplacement areas	Rehabilitated areas are stable.	Areas of exposed soils are revegetated to achieve cohesive ground cover using a native plant species mix compatible with the surrounding environment and erosion has stabilised and resembles natural processes.	Monitor annually until condition criteria achieved.	On track. Light erosion noted at RM1 plot. Erosion engineering controls have recently been constructed along the amenity bund and are likely to result in improvement.
Natural areas	The site is managing significant weed or feral animal infestations	No increase in weed and feral pest populations and monitoring indicates the absence of or decline in weed species. Weeds comprise no more than 15%.	Annual weed monitoring. When monitoring indicates weeds comprise no more than 15% monitoring can be amended to every 3 years. Every 7 years feral animal monitoring is undertaken.	Not applicable to amenity bund
Planting or direct seeding areas	The rehabilitated community is representative of the targeted vegetation community being PCT1330 - Yellow	Revegetation is progressing towards a sustainable ecosystem and only requires maintenance that is	When monitoring indicates revegetation has established on disturbed areas and stratum has	On track. Native vegetation was planted at the western side of Amenity Bund in 2022. Trees

Area	Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
	Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion.	consistent with the intended final land use. More than 56% of established trees are healthy and growing and the rehabilitation is recognisable as PCT 1330.	reached more than 56% established, healthy trees (1.5 to 2m in height) or approximately 10 years from planting.	approximately 0.5-2m height in areas. Some sections more successful than others.
Habitat areas devoid of habitat features and accessible for log and rock placement.	Use cleared trees and boulders to create habitat features in accessible habitat management areas	All logs and boulders available for relocation have been placed in habitat areas that are accessible by machinery.	Monitor every 2 years with the intent to achieve completion within 10 years of clearing activities.	Not applicable to amenity bund as the area is too steep
Areas where assisted natural regeneration is primary activity.	Monitoring has indicated that natural regeneration is occurring.	Signs of seeding occurring and signs of recruitment in all strata. Or evidence to demonstrate that the ecosystem will progress towards recruitment.	When monitoring indicates natural regeneration is establishing itself and weed coverage is <15% of the area to be regenerated.	Not applicable to amenity bund
Fencing, exclusion, and protection works	Rehabilitated areas signposted and fenced off from active quarry operations to prevent access.	All fences are in place, no barb wire exists in the internal fencing, signs are in place and gates are secured and operational. Internal fences that are no longer required are removed.	As completed and monitored annually for maintenance purposes.	Not applicable to amenity bund. SLR has assumed that the amenity bund will not be fenced and is not readily accessible in any case.

Table D-2: Assessment of Habitat Management Area Preliminary Completion Criteria (applies to the northern HMA i.e. RM2 and RM3)

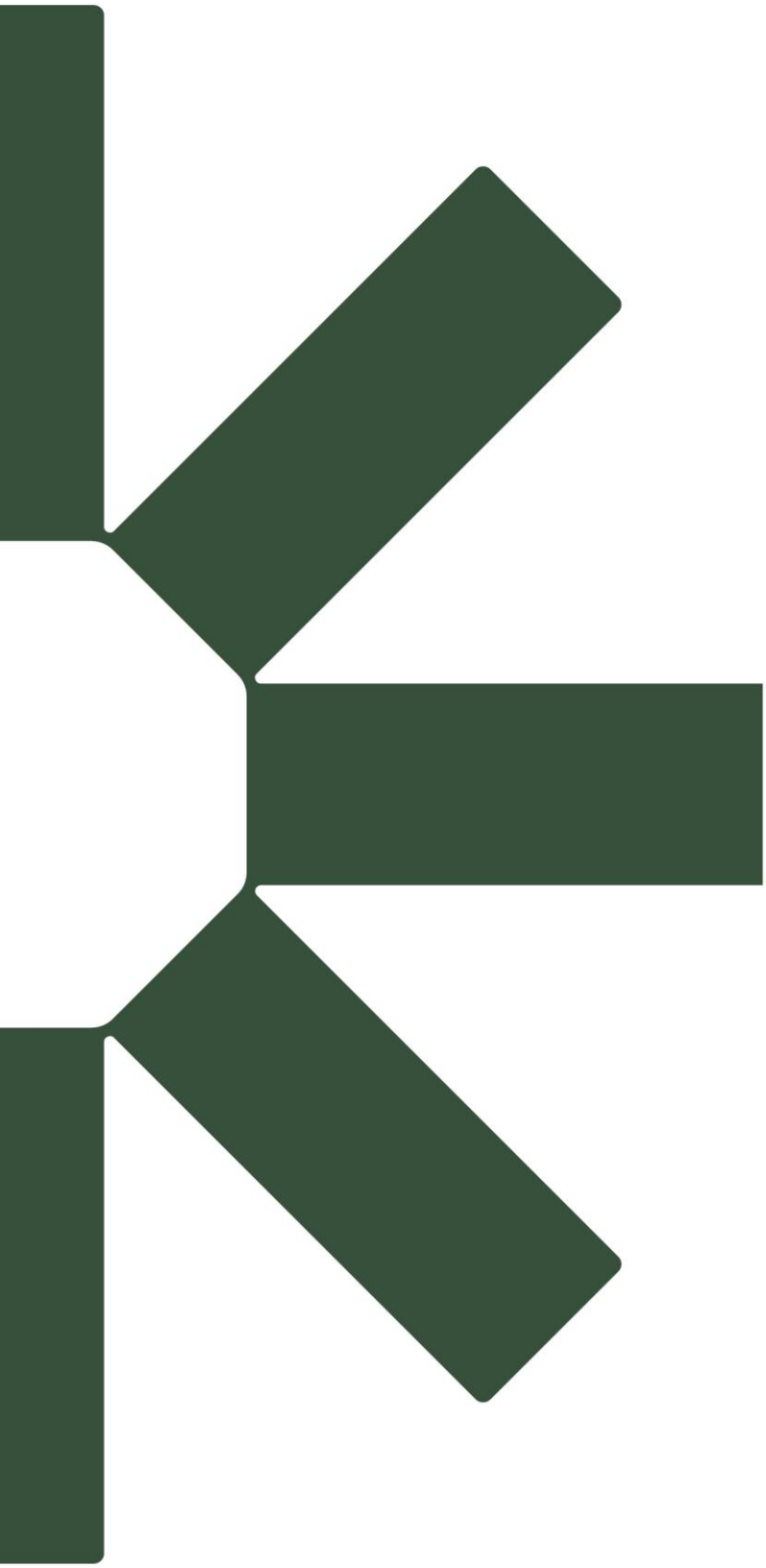
Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
The boundary of the HMA has been fenced and internal fencing has no barb wire.	HMA signposted and fenced off from active quarry operations to prevent access. Barb wire completely removed from internal fencing.	Within 5 years of implementing the Rehabilitation and Landscape Management Plan.	Not assessed. Fencing GIS data and photos required for HMA to allow comparison to management area boundaries. Evidence of fencing has been noted at RM2 and RM3, however the full extent of fencing has not been able to be assessed.
Cattle have been excluded from the area and appropriate signage erected.	Installation of fencing around the perimeter of the HMA to exclude cattle.	Within 6 months of implementing the Rehabilitation and Landscape Management Plan.	Not assessed. Fencing GIS data and photos required for HMA to allow comparison to management areas. No evidence of cattle noted in HMA during monitoring (2020-2025).
Nest boxes have been established, monitored and are being maintained.	Nest boxes are being utilised or show signs of use by native species. Each nest box installed should be in good structural condition and functioning in the landscape.	Completed within 5 years of clearing activities	On track, fifth and final year of nest box monitoring completed in 2024 for 50 nest boxes. Good evidence of usage and minor maintenance recommended. Ongoing monitoring required for 100 nest boxes.
The site is managing significant weed or feral animal infestations with a demonstrable reduction pre-construction.	Weed and pest inspections show no increase in weed population and monitoring indicates the absence of or decline in weed species.	Annual weed monitoring. When monitoring indicates weeds comprise no more than 15% monitoring can be amended to every 3 years. Every 7 years feral animal monitoring is undertaken.	On track. Weed control and reduction noted in 2025. No evidence of pests in 2025.
Natural regeneration is occurring.	Signs of recruitment in all stratum or evidence to demonstrate that the ecosystem will progress towards recruitment. More than 56% of trees are healthy and growing and are recognisable as PCT 1330.	When monitoring indicates revegetation has established and no longer requires assistance.	Not met. Whilst natural regeneration was found to be occurring in all layers within parts of the HMA (e.g. around RM2), the lower more heavily grazed sections (e.g. around RM3, or the southeast end of the HMA) were found to require Sifton Bush

Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
			control and planting of trees.

Table D-3: Assessment of Core Riparian Corridors Preliminary Completion Criteria (applies to the Core Riparian Corridors of Jaorimin Creek and Marulan Creek)

Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
The required areas have been fenced to exclude cattle where required.	Installation of fencing around the perimeter of the corridor to exclude cattle	Within 6 months of implementing the Rehabilitation and Landscape Management Plan	Not assessed. Fencing GIS data and photos required for riparian corridor to allow comparison to management area boundaries. Evidence of fencing has been noted at R2 and CR2.
Revegetation works have occurred along Jaorimin Creek south of the Main Southern Railway.	Signs of recruitment in all stratum or evidence to demonstrate that the ecosystem will progress towards recruitment. More than 56% of trees are healthy and growing.	When monitoring indicates revegetation has established on disturbed areas and stratum has reached more than 56% established, healthy trees (1.5m to 2m in height) or approximately 10 years from planting.	Not met. Rehabilitation monitoring commenced along Jaorimin Creek in 2022 with the establishment of CR1. No revegetation efforts were observed along the creek line.
Nest boxes along Jaorimin Creek have been established, monitored and are being maintained.	Nest boxes are being utilised or show signs of use by native species. Each nest box installed should be in good structural condition and functioning in the landscape	Completed within 5 years of clearing activities	Complete. The fifth and final year of nest box monitoring at Jaorimin Creek was completed in 2024, with good evidence of usage.
The site is managing significant weed or feral animal infestations with a demonstrable reduction pre-construction.	Weed and pest inspections show no increase in weed population and monitoring indicates the absence of or decline in weed species	Annual weed monitoring. When monitoring indicates weeds comprise no more than 15% monitoring can be amended to every 3 years. Every 7 years feral animal monitoring is undertaken.	On track. Weed covers overall declined in 2025. No evidence of major pest infestations (e.g. networks of active burrows). Ongoing weed control and feral animal management required.
Monitoring has indicated that natural regeneration is occurring.	Signs of recruitment in all stratum or evidence to demonstrate that the ecosystem will progress towards recruitment.	When monitoring indicates any revegetation has established and stratum has reached more than	Not met. Rehabilitation monitoring was established in 2022 along Jaorimin Creek (CR1) and Marulan Creek

Objective / Performance Indicator	Preliminary Completion Criteria	Timing	Assessment
	More than 56% of trees are healthy and growing and are recognisable as PCT 1330.	56% establishment or approximately 10 years from any revegetation works.	(CR2). Natural regeneration of native trees and shrubs were observed at CR2 however CR1 contained very little revegetation and will require assistance to meet criteria through revegetation works.



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