

Monitoring of restoration works at Lot 1 DP 1222637, Araluen, NSW

Prepared by Woodlands Environmental Management
PO Box 9, Braidwood NSW 2622
ABN 93 036 995 658
Mob: 0422279946
Email: woodlandsenviro@gmail.com

Prepared for Upper Deua Catchment Landcare Group Inc.
ABN 78 721 547 112

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| Report title | Monitoring of restoration works at Lot 1 DP 1222637, Araluen, NSW |
| Date | June 2025 |
| Report preparation | Woodlands Environmental Management PO Box 9, Braidwood NSW 2622 ABN 93 036 995 658 Tel: Mob: 0422279946 Email: woodlandsenviro@gmail.com Greg Stone – BAppSc (Parks, Recreation & Heritage), GradCert (Environmental Management), GradCert (Science Communication), AdvDip (Land Management), AssDip (Land Management) |
| Proponent | Upper Deua Catchment Landcare Group Inc. |
| Property Address | 856 Majors Creek Mountain Road, Araluen, NSW |
| Property Lot & DP | Lot 1 DP 1222637 |

1. Introduction and summary

The commencement of restoration works has been undertaken by Upper Deua Catchment Landcare Group (UDCLG) as a part of a Remediation Enforceable Undertakings Program required by the Environmental Protection Authority (EPA) in association with Dargues Gold Mine, and funded by Aurelia Metals Limited.

This report provides an overview of the restoration works, outlines a proposed monitoring program, and includes baseline preliminary monitoring data.

2. Site location

The project site is within the Upper Deua River catchment and is located c. 9km south-east and downstream of the Dargues Reef Goldmine and c. 250m north of the confluence of Majors Creek and Araluen Creek. Araluen Creek flows c. 12km southwards into Deua River.

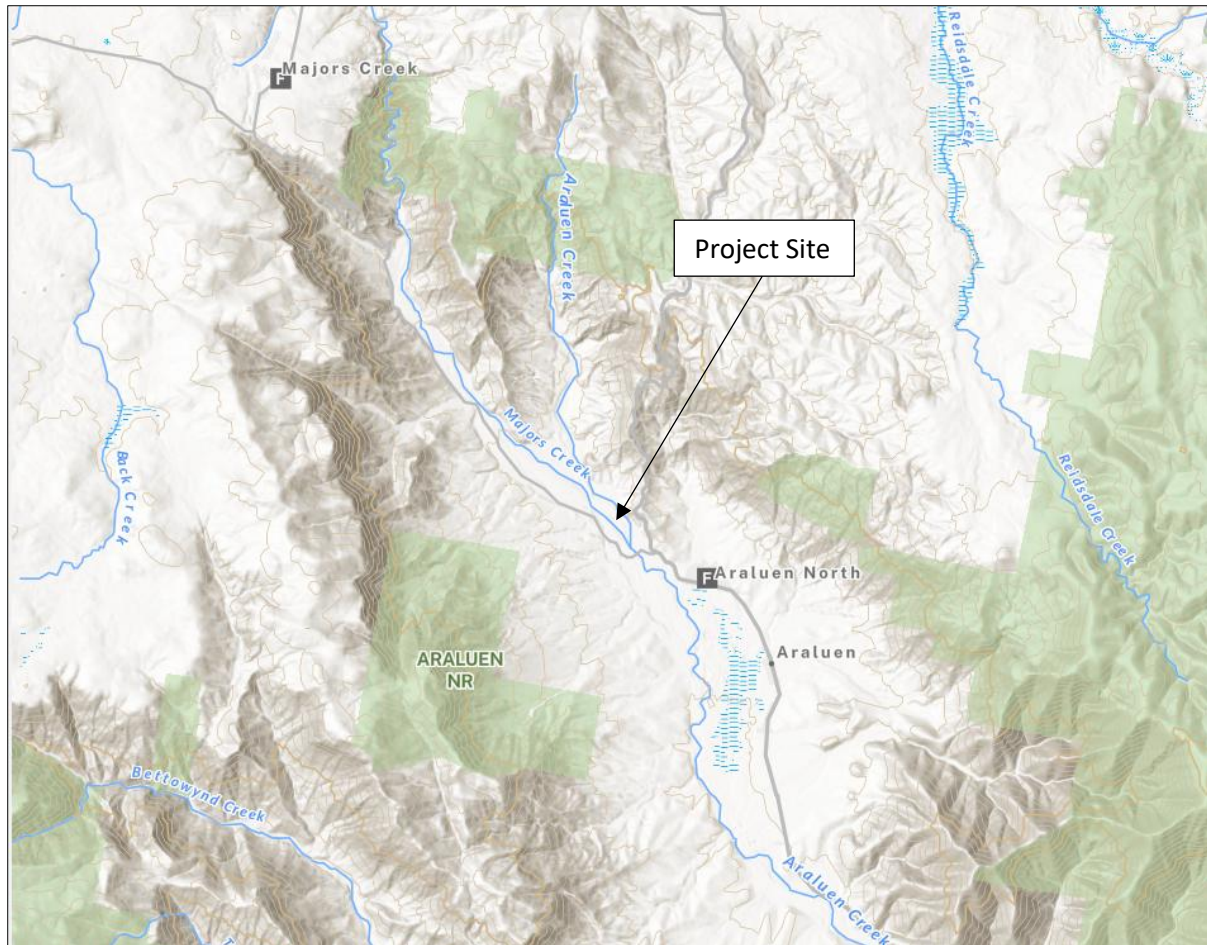


Figure 1: Project Location

3. Project site

The c. 8ha project site is located on flats between Majors Creek and Araluen Creek. The site supports c. 2.75 ha of remnant Southern Escarpment River Oak Forest dominated by mature River She Oak *Casuarina cunninghamiana*. As a consequence of historic land use and recent grazing, the remnant forest includes few native understorey and groundcover species.

The remaining c. 5.3 ha of the project site consists of grassland composed of native and exotic species and scattered River She Oak. Refer Figure 2.



Figure 2: Project Site

4. Project description

The project is the partial restoration of the Southern Escarpment River Oak Forest associated with Majors Creek and Araluen Creek for the purposes of improving water quality, stabilising the stream bed and riparian zone, enhancing aquatic and terrestrial habitat, and improving visual amenity of the locality.

A complete floristic and structural restoration was beyond the scope and resources of the project, and work is limited to re-establishing the dominant overstorey tree species and selected shrub species associated with Southern Escarpment River Oak Forest.

5. Site preparation

Planting sites

Approximately two weeks prior to planting, the herbicide **Roundup Biactive** (Glyphosate 360g/l a.i.) was applied at each of the designated 500 planting sites, to form a circle of at least 1m diameter.

A c. 15cm diameter hole was dug using an auger at each of the designated planting sites.

A mixture of peat moss, water crystals and fertiliser was applied to each hole.

6. Planting stock

The following plant species in 'forestry' (50mm x 50mm x 120mm) tubes were obtained from local sources:

| Trees | | |
|----------------------------------|--------------------|-----|
| <i>Casuarina cunninghamiana</i> | River She Oak | 150 |
| <i>Angophora floribunda</i> * | Rough-barked Apple | 51 |
| <i>Eucalyptus tereticornis</i> * | Forest Red Gum | |
| Shrubs / small trees | | |
| <i>Acacia melanoxylon</i> | Blackwood | 90 |
| <i>Hymenanthera dentatus</i> | Tree Violet | 180 |
| <i>Ficus coronata</i> | Sandpaper Fig | |
| <i>Bursaria spinosa</i> | Sweet Bursaria | |
| <i>Breynia oblongifolia</i> | Coffee Bush | |
| <i>Pomaderris aspera</i> | Hazel Pomaderris | |
| <i>Trema tomentosa</i> | Poison Peach | |
| | | 471 |

* Sufficient numbers of these tree species to make up the total number of plants required were unavailable at the time of planting. Additional trees will be planted in Spring 2025.

7. Plant establishment and protection

7.1 Planting

Planting was undertaken on the 28th and 29th March 2025 by members of the Upper Deua Catchment Landcare Group and Willoughby City Council Bushcare staff and volunteers. Refer Appendix 2.

7.2 Watering

Watering was not required at the time of planting due to ongoing rainfall over the two planting days. Approximately 70mm rainfall was received over 30th and 31st March 2025.

7.3 Protection

Arboregreen's Mallee Mesh 'Wallaby' Tree Guards were installed using two 1.2m hardwood stakes at each guard.

<https://www.arboregreen.com.au/product/1031-mallee-mesh-wallaby-guard-20-pack>

8. Monitoring and reporting

Regular monitoring of the project will be undertaken to measure elements such as plant survival and growth rate, impacts and emerging threats (e.g. marsupial grazing, insect damage, flooding etc.), management and maintenance requirements etc.

8.1 Data collection

The project site was inspected on 2nd May by the Project Manager and two UDCLG members. The following was noted:

- Several tree guards had been disturbed by animals (likely wombats and kangaroos) but had been re-erected by the landholders.
- Browsing of some plants by marsupials had occurred, but the plants remained alive.
- < 5 plants had died.

8.2 Photo monitoring

Twelve Photographic Monitoring Points were established (Figure 3) and preliminary photographs taken on 10th March 2025 (Refer Appendix 1).



Figure 3: Photographic Monitoring Points

8.3 Reporting

Data collection and photographic monitoring and reporting will be repeated at three-monthly intervals i.e. 28th June, 27th September, 27th December 2025, 28th March, 27th June and 26th September 2026.

9. Maintenance

Watering

Watering was undertaken by the landholder on two occasions in April 2025. Rainfall of c. 150mm was recorded over 23rd and 24th May, and no further watering has been required since then.

General maintenance

Several tree guards disturbed by animals were re-erected by the landholders.

Herbicide treatment of African Lovegrass has been undertaken by the landholders.

Appendix 1: Photographic Monitoring



Point 150. Looking south-west. 10th March 2025.



Point 150. Looking south-east. 10th March 2025.



Point 151. Looking north-west. 10th March 2025.



Point 152. Looking south-east. 10th March 2025.



Point 153. Looking north-north-east. 10th March 2025.



Point 154. Looking north. 10th March 2025.



Point 154. Looking south. 10th March 2025.



Point 154. Looking east. 10th March 2025.



Point 154. Looking west. 10th March 2025.



Point 155. Looking south-east. 10th March 2025.



Point 155. Looking south-south-west. 10th March 2025.



Point 155. Looking west. 10th March 2025.



Point 156. Looking east. 10th March 2025.



Point 156. Looking west. 10th March 2025.



Point 157. Looking south-east. 10th March 2025.



Point 157. Looking north-west. 10th March 2025.



Point 159. Looking north-west. 10th March 2025.



Point 160. Looking north-west. 10th March 2025.



Point 161. Looking west-north-west. 10th March 2025.



Point 162. Looking north-west. 10th March 2025.



Point 162. Looking east. 10th March 2025.



Point 163. Looking south-east. 10th March 2025.