



# Annual Reserve Report

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Brown Mountain Reserve 2016-17



[www.tasland.org.au](http://www.tasland.org.au)

## Introduction

The Tasmanian Land Conservancy (TLC) protects important natural areas as permanent reserves and aims to demonstrate excellence in reserve management for biodiversity conservation. The TLC has adopted an adaptive management framework – the Open Standards for the Practice of Conservation which comprises 5 key steps – planning, implementing, monitoring, reporting, review/adaptation and communication.

Brown Mountain Reserve was acquired by the TLC in 2007 and protects 86 hectares of wet eucalypt forest on the slopes of Mount Field in southern Tasmania. The Reserve is surrounded by state forest and private land managed for forestry. The management of the Reserve is guided by the Brown Mountain Reserve Management Plan. The plan is implemented by TLC staff through an Annual Work Plan and Monitoring Plan. Details of ecological monitoring methods can be found in TLC’s Ecological Monitoring Procedures Manual on [www.tasland.org.au](http://www.tasland.org.au).

This report describes progress made towards delivery of the management plan in 2016-17, and is divided into three sections:


1. Reserve Scorecard – a table summarising the results of management effectiveness and ecological monitoring to date;
2. Management Effectiveness Summary – providing details of the implementation of key management strategies and making recommendations for plan improvement;
3. Ecological Monitoring Summary – providing details of the status of conservation targets and trends of key ecological indicators.

The recommendations made in this report are used to adapt and improve management of the Reserve, update the management plan, and revise work and monitoring plans for the coming year. Key findings of this report are communicated to TLC Board, supporters and other stakeholders.


## Brown Mountain Reserve Scorecard 2016-17


| <b>Monitoring</b>                                    |                                   |                         |                                   |
|--|-----------------------------------|-------------------------|-----------------------------------|
| <b>Target</b>  | <b>Indicator</b>                  | <b>Status 2016-17</b>   | <b>Trend</b>                      |
| Wet eucalypt forest                                  | Floristic diversity               | 6.75 species/site       | Baseline data collected this year |
|  | Structural complexity             | 3.4 strata/site         |                                   |
|  | Recruitment                       | 1.25 cohorts/site       |                                   |
|  | Vertebrate fauna diversity        | 6 species<br>96% native |                                   |
| <b>Management Effectiveness</b>                      |                                   |                         |                                   |
| <b>Strategy</b>                                      | <b>Indicator</b>                  | <b>Status</b>           | <b>Trend</b>                      |
| Community engagement and connection to the landscape | # volunteer days on the Reserve   | 1 event – vol 2 days    | No change                         |
|  | # visitors to the Reserve         | Unknown suspect low     | No change                         |
|  | # research and education projects | 2 (inverts / mgt plan)  | No change                         |
| Fire management                                      | # of unplanned fires              | 0                       | Flat                              |

## Monitoring Summary

|   |                                       |  |
|---|---------------------------------------|--|
| <b>Wet Eucalypt Forest</b>  |                                       | <b>Status: Good</b>  |
| <b>Goal:</b><br>The condition of the target is maintained or improved   |                                       | <b>Outcome: On Track</b>   |
| <p><b>Target Description:</b><br/>The vegetation of Brown Mountain Reserve is wet eucalypt forest dominated by mature <i>Eucalyptus regnans</i> – the world’s tallest flowering plant. The understorey is dominated by broadleaved shrubs and rainforest species such as myrtle, sassafras and tree ferns. The forest is regenerating following selective logging in the 1980s. Lyrebirds have recently been observed and pose a potential threat to the Reserve’s values.</p>  |                                       |  <p>Tall wet eucalypt forest. Credit: Denna Kingdom.</p> |
| <b>Ecological indicator</b>   | <b>Current status</b>                 | <b>Trend</b>   |
| Floristic diversity   | 6.25 species/site<br>16 species total | Unknown, monitoring established in Dec 2016  |
| Structural complexity   | 3.4 strata/site                       |  |
| Canopy recruitment  | 1.25 cohorts/site                     |  |
| Vertebrate fauna diversity  | 6 species<br>96% native               |  |
| <p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• Four vegetation and fauna monitoring sites were established this year in Dec 2016</li> <li>• Four invertebrate samples were collected from each of the monitoring sites using pitfall traps</li> <li>• Six mammal native mammal species were detected including two threatened carnivore species – Tasmanian devil and spotted-tailed quoll.</li> <li>• A single cat was detected at one site</li> <li>• Lyrebirds were detected on cameras at multiple sites and their impact was evident across the reserve</li> <li>• Vegetation is in good condition and is regenerating well following historic logging activity.</li> </ul> |                                       |  |
| <p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Repeat long-term monitoring in 2020 including invertebrate sampling at each site</li> <li>• Encourage a student research project on lyrebird management</li> </ul>   |                                       |  |

## Management Effectiveness Summary

| Community engagement and connection to the landscape  |   |           |
|---|---|-----------|
| <b>Key objective(s)</b> <ul style="list-style-type: none"> <li>TLC provides opportunities for the community to experience or benefit from the Reserve through education, recreation, research and volunteering</li> </ul>   | <b>Status 2016-17</b><br><b>On Track</b>  |           |
| <b>Strategy description</b><br>Brown Mountain Reserve provides the community with a range of recreational, educational, research and volunteering opportunities. The local community, volunteers, the indigenous community and other stakeholders are encouraged to participate in planning and land management activities and for education and scientific research.   |  <p>Volunteer Jane Keble-Williams collecting invertebrates at monitoring sites in Dec 2016: Photo S Bryant.</p> |           |
| Indicator   | Current status  | Trend     |
| # of volunteer activities at the Reserve  | 1 event - 2 vol days  | No change |
| # research and education projects   | 2 (invertebrates / management plan)   | No change |
| # visitors to the Reserve   | Unknown – suspect low   | No change |
| <b>Progress in 2016-17</b> <ul style="list-style-type: none"> <li>Access to the Reserve was maintained, no visitor numbers recorded but suspected as low.</li> <li>Volunteers assisted staff to install monitoring cameras and establish vegetation monitoring sites.</li> <li>Norske Skog were approached again regarding a formal right of way.</li> <li>TLC Volunteer Dr Jane Keble-Williams conducted an invertebrate survey at each of the ecological monitoring sites across the reserve by installing pitfall traps.</li> <li>Bushwalkers continue to occasionally access the Reserve on route to Manny’s Marsh. This group is interested in establishing a walking circuit.</li> <li>A new Brown Mt Reserve Management Plan was finalised and installed on the web</li> </ul> |   |           |
| <b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>Maintain access to the Reserve and continue to pursue right of way with Norske Skog.</li> <li>Ask the local bushwalkers to let us know when they are going there, so that TLC can monitor visitation.</li> <li>Continue to encourage community connections to the reserve by providing research, education, recreation or volunteering opportunities</li> <li>Maintain relationship with the local bushwalking community</li> </ul>   |   |           |

|   |                       |  |
|---|-----------------------|--|
| <b>Fire management</b>  |                       |  |
| <b>Key objective(s)</b>   |                       | <b>Status 2016-17</b><br><b>On Track</b>   |
| <ul style="list-style-type: none"> <li>No unauthorised fires occur on the reserve (ongoing)</li> </ul>  |                       |  |
| <b>Strategy description</b>   |                       |  <p>Tall wet eucalypt forest. Credit: Denna Kingdom.</p> |
| <p>An inappropriate fire regime will reduce the condition of the natural values at Brown Mountain Reserve. The impact of fire on local communities also needs to be considered.</p> <p>The vegetation at Brown Mountain Reserve and the surrounding area is wet eucalypt forest, which has an optimum fire interval of &gt;100 years, and is negatively impacted by more frequent fires.</p> <p>A fire risk assessment has determined that the Reserve presents a low risk to local communities due to the distance from nearby communities.</p>                          |                       |  |
| <b>Indicator</b>  | <b>Current status</b> | <b>Trend</b>   |
| No. of unplanned fires  | 0 unplanned fires     | Flat   |
| <b>Progress in 2016-17</b>  |                       |  |
| <ul style="list-style-type: none"> <li>There were no unauthorised fires on the Reserve in 2016-17.</li> <li>A fire risk assessment was completed for all TLC reserves.</li> <li>A fire management policy for all TLC Reserves is being implemented.</li> <li>A fuel stove only policy is also being implemented.</li> <li>A whole-of-TLC fire management strategy is being developed to ensure all TLC properties are effectively managed from threats relating to fire, and that fire is used appropriately as a tool to manage the values of TLC properties.</li> </ul> |                       |  |
| <b>Key recommendations for future management</b>  |                       |  |
| <ul style="list-style-type: none"> <li>Maintain vehicle access to the nearest track junction.</li> <li>Continue to implement a fuel stove only policy for the Reserve.</li> <li>Continue to develop the whole-of-TLC fire management strategy.</li> </ul>   |                       |  |