



Annual Reserve Report

Brown Mountain Reserve 2016-17



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.

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

Monitoring			
Target	Indicator	Status 2016-17	Trend
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 96% native	
Management Effectiveness			
Strategy	Indicator	Status	Trend
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

Wet Eucalypt Forest		Status: Good
Goal: The condition of the target is maintained or improved		Outcome: On Track
<p>Target Description: 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>
Ecological indicator	Current status	Trend
Floristic diversity	6.25 species/site 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 96% native	
<p>Key findings</p> <ul style="list-style-type: none"> • Four vegetation and fauna monitoring sites were established this year in Dec 2016 • Four invertebrate samples were collected from each of the monitoring sites using pitfall traps • Six mammal native mammal species were detected including two threatened carnivore species – Tasmanian devil and spotted-tailed quoll. • A single cat was detected at one site • Lyrebirds were detected on cameras at multiple sites and their impact was evident across the reserve • Vegetation is in good condition and is regenerating well following historic logging activity. 		
<p>Recommendations</p> <ul style="list-style-type: none"> • Repeat long-term monitoring in 2020 including invertebrate sampling at each site • Encourage a student research project on lyrebird management 		

Management Effectiveness Summary

Community engagement and connection to the landscape		
Key objective(s) <ul style="list-style-type: none"> TLC provides opportunities for the community to experience or benefit from the Reserve through education, recreation, research and volunteering 	Status 2016-17 On Track	
Strategy description 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 style="text-align: center;">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	Unknow – suspect low	No change
Progress in 2016-17 <ul style="list-style-type: none"> Access to the Reserve was maintained, no visitor numbers recorded but suspected as low. Volunteers assisted staff to install monitoring cameras and establish vegetation monitoring sites. Norske Skog were approached again regarding a formal right of way. TLC Volunteer Dr Jane Keble-Williams conducted an invertebrate survey at each of the ecological monitoring sites across the reserve by installing pitfall traps. Bushwalkers continue to occasionally access the Reserve on route to Manny’s Marsh. This group is interested in establishing a walking circuit. A new Brown Mt Reserve Management Plan was finalised and installed on the web 		
Key recommendations for future management <ul style="list-style-type: none"> Maintain access to the Reserve and continue to pursue right of way with Norske Skog. Ask the local bushwalkers to let us know when they are going there, so that TLC can monitor visitation. Continue to encourage community connections to the reserve by providing research, education, recreation or volunteering opportunities Maintain relationship with the local bushwalking community 		

Fire management		
Key objective(s)		Status 2016-17 On Track
<ul style="list-style-type: none"> No unauthorised fires occur on the reserve (ongoing) 		
Strategy description		 <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 >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>		
Indicator	Current status	Trend
No. of unplanned fires	0 unplanned fires	Flat
Progress in 2016-17		
<ul style="list-style-type: none"> There were no unauthorised fires on the Reserve in 2016-17. A fire risk assessment was completed for all TLC reserves. A fire management policy for all TLC Reserves is being implemented. A fuel stove only policy is also being implemented. 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. 		
Key recommendations for future management		
<ul style="list-style-type: none"> Maintain vehicle access to the nearest track junction. Continue to implement a fuel stove only policy for the Reserve. Continue to develop the whole-of-TLC fire management strategy. 		