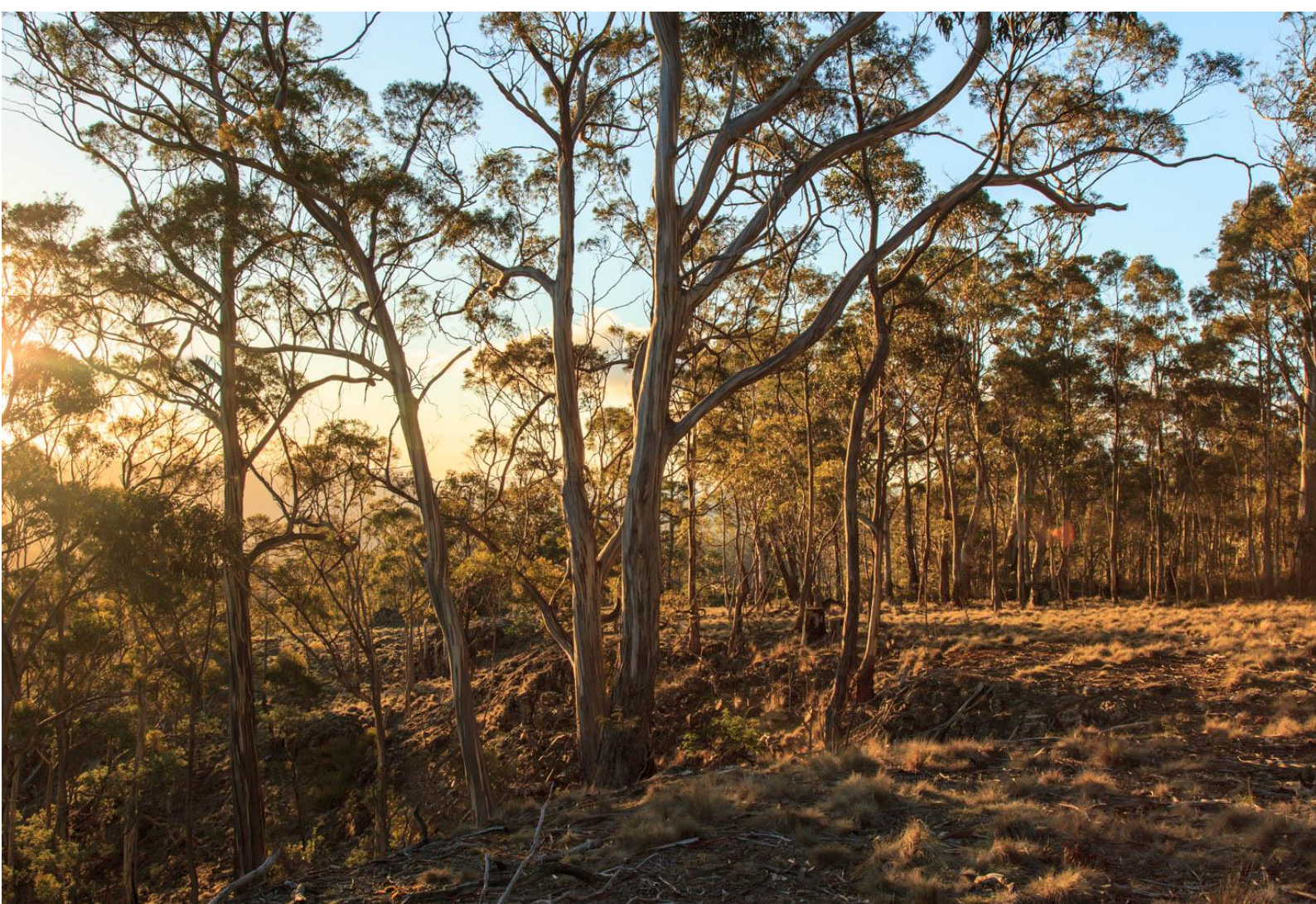




# Annual Report

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## Flat Rock Reserve 2017-18



[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 6 key steps – planning, implementing, monitoring, reporting, review/adaptation and communication.

Flat Rock Reserve was acquired by the TLC in 2006 and protects 455 hectares of eucalypt woodland and rock-plate grassland in the Meehan Range, northeast of Hobart. The Reserve adjoins Chauncy Vale Wildlife Sanctuary which is one of Tasmania's oldest reserves. The management of the Reserve is guided by the Chauncy Vale Sanctuary and Flat Rock 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 2017-18, and is divided into three sections:

1. Reserve Scorecard – a table summarising the results of ecological monitoring to date;
2. Management 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.

## FLAT ROCK RESERVE SCORECARD 2017-18


Ecological Monitoring					
Target	Indicator	2014-15	2016-17	Status 2017-2018	Trend
Dry eucalypt forest and woodland	Floristic diversity	8.5 species/site	No monitoring	9.8 species/site	stable/improving
	Structural complexity	7.1 lifeforms/site	No monitoring	7.1 lifeforms/site	
	Canopy recruitment	1.7 cohorts/site	No monitoring	1.8 cohorts/site	
Terrestrial mammals	Species richness	8 native species 0 introduced species	No monitoring	8 native species 3 introduced species	Improving – new species recorded
	Proportion native sp	1.00	No monitoring	0.73	
	Native species diversity indices	Simpsons 0.71 Shannon-Wiener 1.42	No monitoring	Simpsons 0.75 Shannon-Wiener 1.66	
Feral animals	Cat occupancy Cat activity	0 (detected at 0/7 sites) 0 (0 detections from 163 trap nights)	No monitoring No monitoring	0.3 (detected at 3/9 sites) 0.03 (8 detections from 315 trap nights)	Increase
Management Effectiveness					
Strategy	Indicator	Status 2014-15	Status 2016-17	Status 2017-2018	Trend
Weed management	Weed extent	No monitoring	0.4 ha	<0.4	Improving
	Treatment extent (ha)	No monitoring	0.4 ha	<0.4	Improving
Fire management	No of unplanned fires	0	0	0	Stable
Access management	Reportings / evidence of illegal entrv	Issues reported	Issues reported	Issues reported	Issues ongoing

Note: The 'Community Connection to Landscape' Strategy has been removed and is reported across all reserves annually.


Cover image: Flat Rock Reserve Photo: Andy Townsend





## MONITORING SUMMARY

<b>Dry Eucalypt Forest and Woodland</b>			<b>Status: Good</b>	
<b>Goal:</b> Floristic diversity of vegetation is maintained and structural complexity is improved			<b>Outcome: On Track</b>	
<b>Target Description:</b> Dry sclerophyll forest and woodland communities can be divided into 11 distinct vegetation communities with four of these identified as threatened in Tasmania. The dry sclerophyll forest and woodland communities provide essential habitat for all of the threatened plant and animal species known on the Reserves. A long history of timber harvesting has caused significant degradation to some areas Flat Rock Reserve and there is a large network of tracks that are causing erosion due to the steepness of the terrain. Despite these impacts, most of the Reserve is in good condition.			 <p>Flame robin at Flat Rock. Photo: Andy Townsend</p>	
Target	Indicator	2014-15	2016-17	Status 2017-2018 Trend
Dry eucalypt forest and woodland	Floristic diversity	8.5 species/site	No monitoring	9.8 species/site - stable
	Structural complexity	7.1 lifeforms/site	No monitoring	7.1 lifeforms/site - stable
	Canopy recruitment	1.7 cohorts/site	No monitoring	1.8 cohorts/site - increase
Terrestrial mammals	Species richness	8 native species 0 introduced species	No monitoring	8 native species 3 introduced species
	Proportion native sp	1.00	No monitoring	0.73 - reduced
	Native species diversity indices	Simpsons 0.71 Shannon-Wiener 1.42	No monitoring	Simpsons 0.75 Shannon-Wiener 1.66
Feral animals	Cat occupancy	0 (detected at 0/7 sites)	No monitoring	0.3 (detected at 3/9 sites)
	Cat activity	0 (0 detections 163 trap nights)	No monitoring	0.03 (8 detections 315 trap nights)
<b>Key findings</b> <ul style="list-style-type: none"> <li>Floristic diversity of vegetation across the Reserve is highly variable. Areas of <i>Eucalyptus tenuiramis</i> forest and <i>Eucalyptus obliqua</i> forest occur on poorer soils and have a depauperate understorey vegetation, whereas, areas of <i>Eucalyptus globulus</i> forest occur on fertile dolerite soils and support diverse flora. Recruitment of canopy species across the reserve is high, due to the disturbance associated with logging.</li> <li>The vegetation structure has been extensively modified in some areas by logging and firewood collecting. This has reduced the density of mature trees and fallen timber. These structures provide important habitat for a range of fauna. Low productivity areas of the property will take time to regenerate.</li> <li>Mammals recorded in 2014-15 were: Tas devil, spotted-tail quoll, Bennetts wallaby, pademelon, brush-tail possum, echidna, dunnart (confirmed) and wombat. New species detected in 2017-18 were eastern quoll, Tas bettong, swamp rat, feral cat, dog and black rat with most of the previous species recorded being re-detected.</li> </ul>				
<b>Recommendations</b> <ul style="list-style-type: none"> <li>Prevent unauthorised access to the Reserve, which is associated with wood hooking.</li> <li>Conduct ecological or fuel reduction burns mostly in productive grassy woodlands that have not been significantly impacted by logging and wood hooking.</li> </ul>				

## MANAGEMENT EFFECTIVENESS SUMMARY

Access management			
<b>Key objective(s)</b> <ul style="list-style-type: none"> <li>No unauthorised access to the Reserve by 2018</li> </ul>		<b>Status 2017-18</b> <b>Minor issues</b>	
<b>Strategy description</b> <p>Prior to TLC's ownership of Flat Rock Reserve, there was a long history of people accessing the property without permission to engage in a range of environmentally damaging activities including dumping rubbish, off-road vehicle use and stealing firewood. These activities have caused degradation of the eucalypt forests and resulted in a vast network of unplanned tracks which cause erosion. The majority of these activities (with exception for trail bike riding) were successfully stopped in 2009. The main source of unauthorised access has been the northern boundary of the property, which adjoins a network of roads managed by PWS or private landholders from the Native Corners area. This area is very remote and difficult to police.</p>		<p>Track signage at Flat Rock Reserve. Photo: TLC.</p> 	
<b>Indicator</b>	<b>Status 2014-15</b>	<b>Status 2016-17</b>	<b>Status 2017-2018 Trend</b>
Reportings / evidence of illegal entry	Issues reported	Issues reported	Issues reported - Issues ongoing
<b>Progress in 2017-18</b> <ul style="list-style-type: none"> <li>Follow up on advised purchase of neighbouring property in 2017. Provide keys to new neighbours and discuss the arrangement and restriction of access.</li> <li>Continued to deal with woodhookers including adjacent landholder and continue to block illegal access tracks.</li> <li>Continue to install new signage, complete and install map sign and extra small signs on existing posts, plus install post at Hutchins site to help deter illegal access to Flat Rock via Chauncy Vale</li> </ul>			
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>Continue to rehabilitate tracks not needed for reserve management or recreation.</li> <li>Continue to encourage visitors to be vigilant of illegal use and report observations to TLC.</li> </ul>			

<b>Weed management</b>			
<b>Key objective(s)</b> <ul style="list-style-type: none"> <li>Known infestations of weeds are eradicated from the Reserve by 2020</li> </ul>		<b>Status 2017-18</b> <b>On-track</b>	
<b>Strategy description</b> Most of Flat Rock Reserve is weed free. The exception is an area near East Bagdad Road, where dumping of garden waste over many years has created a diverse infestation of weeds including broom, hemlock, mignonette and California thistle.		Checking Flat Rock Reserve for weeds. Photo D Kingdom 	
<b>Indicator</b>	<b>Status 2014-15</b>	<b>Status 2016-17</b>	<b>Status 2017-2018 Trend</b>
Weed extent	No monitoring	0.4 ha	<0.4 - improving
Treatment extent (ha)	No monitoring	0.4 ha	<0.4 - improving
<b>Progress in 2017-18</b> <ul style="list-style-type: none"> <li>Broom near the Reserve gate that was treated in July 2016 was checked on 31/5/2018. Broom seedlings are emergent, with some up to 30cm tall. These were treated.</li> <li>Hemlock near the Reserve gate that was hand-pulled and sprayed in November 2015 was re-checked.</li> <li>Weed mapping was updated.</li> </ul>			
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>Continue to check previous treatment areas and manage and map weed infestations.</li> </ul>			

<b>Fire management</b>			
<b>Key objective(s)</b> <ul style="list-style-type: none"> <li>No unauthorised fires occur on the reserve (ongoing).</li> </ul>		<b>Status 2017-18</b> <b>On-track</b>	
<b>Strategy description</b> Fire is an important ecological process in dry eucalypt forest ecosystems, such as those found at Flat Rock Reserve. However, unplanned fires present a threat to both the natural values and humans. TLC aims to manage risks associated with fire strategically and through working with fire agencies, institutional partners, landholders and others stakeholders.		East Bagdad draft burn units Map: TASFIRE 	
<b>Indicator</b>	<b>Status 2014-15</b>	<b>Status 2016-17</b>	<b>Status 2017-2018 Trend</b>
No. of unplanned fires	0 unplanned fires	0 unplanned fires	0 unplanned fires - Flat
<b>Progress in 2017-18</b> <ul style="list-style-type: none"> <li>New gate keys provided to TASFIRE on 1 Oct 2017</li> <li>There were no unauthorised fires on the Reserve in 2017-18</li> <li>A fire risk assessment was completed for all TLC reserves and a fire management policy is being implemented.</li> <li>A fuel stove only policy is also being implemented.</li> <li>TLC will participate in a strategic burning program being implemented by the Tasmania Fire Service, with an Operational Burn plan having already been developed and approved for an autumn burn when weather and fuel conditions are suitable.</li> <li>Roads were checked for access and maintained in a safe condition for 4WD vehicles.</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>Conduct an autumn fuel reduction/ecological burn when weather and fuel conditions are suitable in cooperation with TASFIRE Service.</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>			