



# Annual Reserve Report

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Lower Liffey World Heritage 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.

Lower Liffey Reserve was acquired by the TLC in 2010 and protects 14 hectares of wet eucalypt forest on the slopes of the Great Western Tiers in northern Tasmania. The Reserve adjoins Liffey Forest Reserve (WHA) and forms part of recent extensions to the Tasmanian Wilderness World Heritage Area. The management of the Reserve is guided by the Lower Liffey WHA 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.

## Lower Liffey World Heritage 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 species per site 14 species total	Baseline data collection is scheduled for 2016
	Structural complexity	4 strata per site	
	Canopy recruitment	0.25 cohorts per site	
	Vertebrate fauna diversity	7 native species 73% native species	
<b>Management Effectiveness</b>			
<b>Strategy</b>	<b>Indicator</b>	<b>Status 2016-17</b>	<b>Trend</b>
Community engagement	# events at the Reserve	0	Flat
	# of volunteer activities	1 activity / 9 vol days	Flat
	# of research and education projects	0	Flat
Weed management	Weed extent (ha)	14 ha	Flat
	Weed density	Very low	Improving

Cover image: Vegetation monitoring site on Lower Liffey Reserve. Photo S. Bryant

## Monitoring Summary

<b>Wet eucalypt forest</b>		<b>Status: Good</b>
<b>Goal:</b> Improve the condition of wet eucalypt forest		<b>Outcome: On Track</b>
<p><b>Description</b> The vegetation of Lower Liffey WHA Reserve is regenerating wet eucalypt forest that is dominated by mature silver wattle (<i>Acacia dealbata</i>) over a sub-canopy of eucalypt saplings. As the forest continues to regenerate eucalypts will form the dominant strata. The understorey is dominated by broadleaved shrubs, rainforest species and ferns.</p>		
Tall eucalypt forest. Photo: TLC		
<b>Ecological indicator</b>	<b>Current status</b>	<b>Trend</b>
Floristic diversity	6 species per site 14 species in total	Baseline
Structural complexity	4 strata per site 0.25 cohorts per site	Baseline
Native mammals	7 species 73% native	Baseline
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>Monitoring was established in December 2016.</li> <li>Vegetation is in fair condition. Blackberry (<i>Rubus fruticosus</i>) a declared weed, is widespread (75% of sites) but in low density. Recruitment of eucalypt species was not evident at any of the monitoring sites. However, occasional eucalypt seedlings and saplings were observed during the course of the fieldwork.</li> <li>A rich community of native mammals was observed. Two threatened species – Tasmanian devil and spotted-tailed quoll – were recorded, along with two species of conservation significance - common wombat and brown bandicoot.</li> <li>Black rats were observed at several sites. No feral cats were observed.</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>Repeat monitoring in 2020</li> <li>Continue efforts to control weeds</li> </ul>		

## Management Effectiveness Summary

Community engagement and neighbour relations		
<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</li> </ul>	<b>Status 2016-17</b> <b>On-track</b>	
<b>Strategy description</b> The TLC provides opportunities for the community and individuals to achieve conservation. The local community, volunteers, the indigenous community and other stakeholders are encouraged to participate in planning and land management activities. TLC Reserves provide excellent opportunities for education and scientific research. Sustainable economic development may be supported at some reserves where appropriate.	 <p>TLC volunteers on a weeding working bee. Photo: Chris Crerar.</p>	
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
# of events at the Reserve	0	Flat
# of volunteer activities at the Reserve	1 activity, 9 volunteer days	Flat
# research activities on the Reserve	0	Flat
<b>Progress in 2016-17</b> <ul style="list-style-type: none"> <li>Signs were checked and access to Reserve maintained</li> <li>TLC maintained a good relationship with PWS.</li> <li>A team of 5 volunteers worked for 1 day on foxglove and elderberry weed control in November 2016. Two local volunteers undertook a further 2 days to complete the control of foxglove.</li> <li>Visitors camp on TLC's Liffey Reserve at a small flat area immediately next to the bridge. It is unknown how many people camp there.</li> </ul>		
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>Maintain access to the Reserve</li> <li>Continue to provide opportunities for people to connect with the Reserve.</li> <li>Continue to maintain relationships with neighbours and community connections to the reserve by providing research, education, recreation or volunteering opportunities.</li> </ul>		

<b>Weed management</b>		
<b>Key objective(s)</b>		<b>Status 2016-17</b> <b>On-track</b>
<ul style="list-style-type: none"> <li>Weeds are eradicated from the Reserve by 2017</li> </ul>		
<b>Strategy description</b>		<p>Voluntters weeding at Liffey. Phphoto C. Crerar</p> 
<p>The aim of this strategy is to eradicate existing infestations of weeds on the Reserve. Blackberry, foxglove and elderberry were widespread on the Reserve at the time of its acquisition, but ongoing weed control work has greatly reduced their density. Weed mapping and control is continuing.</p>		
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
Weed extent (ha)	14 ha	Flat
Weed density	Very low	Improving
<b>Progress in 2016-17</b>		
<ul style="list-style-type: none"> <li>Scattered infestations of weeds were treated by volunteers across the Reserve</li> <li>Weed control is continuing, with the focus of control on foxglove and elderberry. However, control needs to be undertaken annually into the future to ensure that the foxglove seedbank is exhausted, and to search for any new elderberry plants, as seed is spread by birds.</li> <li>The weed control program continues to provide volunteers with opportunities to connect with the Reserve and be actively involved in its management</li> </ul>		
<b>Key recommendations for future management</b>		
<ul style="list-style-type: none"> <li>Continue the successful weed control program</li> </ul>		