

Annual Reserve Report

Silver Peppermint Reserve 2016-17



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.

Silver Peppermint Reserve was acquired by the TLC in 2003 and protects 40 hectares of dry heathy *Eucalyptus tenuiramis* forest in the Derwent Valley near Ellendale. The management of the Reserve is guided by the Silver Peppermint 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. Ecological Monitoring Summary – providing details of the status of conservation targets and trends of key ecological indicators
3. Management Effectiveness Summary – providing details of the implementation of key management strategies and making recommendations for plan improvement;


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.

SILVER PEPPERMINT RESERVE SCORECARD 2016-17


Ecological Monitoring			
Target	Indicator	Status 2014-15	Trend
Dry heathy forest	Floristic diversity	8.9 species/site	Monitoring scheduled for 2018
	Structural complexity	8.7 strata/site	
	Canopy species recruitment	2.6 cohorts per site	
	Vertebrate fauna diversity	7 native species 97% native species	Steady increase Steady increase
	Bird diversity	16 species/visit 2014-15 27 species/visit 2016-17	Steady increase
Management Effectiveness			
Strategy	Indicator	Status 2016-17	Trend
Access control	Evidence of unauthorised access	None	Decrease
Fire management	Number of unplanned fires	0	Decrease
Stock exclusion	Instances of stock access	0	Flat
Weed management	Weed extent	~20 ha	Improving
	Weed density	Moderate	Improving
Community Connection to landscape	# volunteers / vol days	5 vols / 5 days	Stable
	# events / projects	2 (devils, inverts)	Increase


Cover image: Silver Peppermint Reserve showing recovery post fire March 2017. Photo: Sally Bryant


ECOLOGICAL MONITORING SUMMARY


Dry Heathy Forest		Status: Good	
Goals <ul style="list-style-type: none"> - Structural complexity has increased by 20% by 2020. - Floristic diversity is maintained 		Outcome: On Track	
Description The Reserve protects dry eucalypt forest dominated by silver peppermint, white gum and brown-topped stringy bark. A long history of wood-hooking and frequent burning has resulted in reduced structural complexity and floristic diversity in the vegetation and a very high density of bracken fern in the understorey.		 Kookaburra at Silver Peppermint Photo: TLC	
Ecological indicator	Status 2016-17	Status 2014-15	Trend
Floristic diversity	No data	8.9 species/site	Increasing in 2014-15. Monitoring scheduled in 2018
Structural complexity	No data	8.7 strata/site	
Canopy species recruitment	No data	2.6 cohorts per site	
Vertebrate fauna diversity	7 native species 97% native	4 native species 84% native	Steady increase
Bird diversity	27 species/visit	16 species per visit	Steady increase
Key findings <ul style="list-style-type: none"> • Vegetation condition was not assessed this year but showed signs of continued improvement during field trips for mammal monitoring. • The native mammal community showed evidence of improvement in the past 2 years. Two threatened species (Tasmanian devil and spotted-tailed quoll) and two conservation-significant species (Tasmanian bettong and common wombat) were recorded. • Results for Tas devil monitoring by DPIWE's Billy Lazenby (2 June 2017) for Mt Bethune and Silver Pepp (approx 30 km²): 43 individuals captured, 27 female, 16 male, 6 were clearly diseased (constituting 14%), 24 one year olds, 16 two year olds, and 3 three year olds, 11 individuals were recaptured that were first marked last year. This shows an increase in density and the number of older devils constituting the population compared to previous post-disease years. Biopsy results may give some indication as to whether this apparent improvement is related to changes in the devils (e.g. their immunity) or a change in the disease strain, and therefore whether the improvement is likely to be sustained. • Cats and rabbits are in lower numbers than previous years. • Bird species diversity continues to steadily increase post fire with 1 - 2 new species regularly detected. 			
Recommendations <ul style="list-style-type: none"> • Repeat monitoring in January 2018, which will be 5 years post-fire. • Continue implementing management practices to discourage wood-hooking and unplanned fire. 			


MANAGEMENT EFFECTIVENESS SUMMARY

Access Control		
Key objective(s) <ul style="list-style-type: none"> No unauthorised access by 2016 		Status 2016-17 On-track
Strategy description <p>The aim of this strategy is to prevent illegal access to the Reserve. Unregulated access has caused significant impacts to some TLC Reserves. Unauthorised access is associated with a range of activities that impact on the natural values of a Reserve, including hunting, wood-hooking, campfires, dumping of rubbish, damage to infrastructure (such as gates and fences) and off-road vehicle use. Rockmount Road passes through Silver Peppermint Reserve, allowing public access to the property. The relative isolation of the Reserve allows people to undertake illegal activities undetected.</p>	 <p>Entry sign to Silver Peppermint Reserve remains intact. Photo: TLC</p>	
Indicator	Current status	Trend
Evidence of unauthorised access	None	Flat
Progress in 2016-17 <ul style="list-style-type: none"> A barrier fence constructed along Rockmount Road in May 2015 was maintained. No evidence of illegal access or theft of firewood was detected in 2016-17. 		
Key recommendations for future management <ul style="list-style-type: none"> Maintain barrier fence along Rockmount Road. 		

Fire management		
Key objective(s) <ul style="list-style-type: none"> No unplanned fires occur on the reserve (ongoing). 		Status 2016-17 On-track
Strategy description An excessively high frequency of bushfires has reduced the condition of the vegetation and a severe bushfire in 2013 burnt the entire Reserve. The lighting of fires will not be permitted at Silver Peppermint Reserve and TLC will work with neighbours, the PWS and the TFS to reduce the risk of unplanned fires.	 <p>Native vegetation recovering post fire Dec 2016. Photo: S Bryant</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"> Implement TLC Fire Management Policy. Continue to implement a fuel stove only policy for the Reserve. Continue to develop the whole-of-TLC fire management strategy. 		

Stock exclusion		
Key objective(s) <ul style="list-style-type: none"> Access by neighbouring stock is prevented (ongoing) 		Status 2016-17 On-track
Strategy description Livestock are grazed on neighbouring properties to the north, west and south of Silver Peppermint Reserve. Livestock have the potential to reduce vegetation condition. Existing fences prevent stock from accessing the reserve. Fence condition will be checked annually and fences will be repaired as necessary.	Native grasses are thriving due to lack of disturbance. Photo: S Bryant 	
Indicator	Current status	Trend
No stock access the reserve	No stock access	Flat
Progress in 2016-17 <ul style="list-style-type: none"> No stock access was detected in 2016-17. Boundary fences were assessed, fallen branches were removed. 		
Key recommendations for future management <ul style="list-style-type: none"> Continue to monitor fences and repair fences when necessary. 		

Weed management		
Key objective(s) <ul style="list-style-type: none"> Weed infestations have received primary treatment by 2016 		Status 2016-17 On-track
Strategy description Infestations of thistles (several species) occur across the reserve, with higher densities occurring in areas where fire has removed the tree canopy. Weeds have the potential to become much more widespread on the Reserve, but are likely to reduce in number as the tree canopy re-establishes. Reducing the density of weeds will assist with the re-establishment of a healthy, native plant understorey.	Native species resembling Spanish heath. Photo: Sally Bryant 	
Indicator	Current status	Trend
Weed extent	~20 ha	Improving
Weed density	Moderate	Improving
Progress in 2016-17 <ul style="list-style-type: none"> Areas of high density spear thistle infestation (primarily west of the main road) received follow-up weed treatment in December 2016 and January 2017. Californian thistles were scheduled for spraying in March 2017 prior to dying back, however the timing of this was too late. A report of Spanish Heath on the Reserve was investigated and found to be a native species. 		
Key recommendations for future management <ul style="list-style-type: none"> Continue follow-up weed control at known infestations, with spraying scheduled for January or February. Record and treat any new weed infestations. 		

Community Connection to the Landscape		Status: Good
Goal: The community has opportunities to connect with the landscape through research, volunteering, education and recreation (ongoing)		Outcome: On Track
Target Description: 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. Long term Tas devil monitoring is being undertaken by the Tasmanian Government	J Keble-Williams collecting invertebrate samples Photo S Bryant 	
Community indicator	Current status	Trend
Volunteers / vol days	5 volunteers / 5 vol days	Stable
No of events / projects	2 (devils, inverts)	Increase
Key findings <ul style="list-style-type: none"> • Visitor safety is an issue off-track due to falling limbs from burnt trees. • The Save the Devil Team continues to annually monitor the Tasmanian devil population. • Invertebrates were surveyed using pitfall traps at the 10 m pole of DGF3, DGF2, DHF4, DHF6 by J Keble-Williams in 22 Dec 2016 • 4 volunteers assisted with ecological monitoring for 1 day and 1 vol scored images for 1 day • Updated Silver Peppermint Reserve Mangement Plan was completed 		
Recommendations <ul style="list-style-type: none"> • Continue to encourage community connections to the reserve by providing opportunities for research, education, recreation and volunteering. • Develop and implement a system for reporting all visitors to TLC Permanent Reserves. • Continue to maintain relationships with neighbours. 		