



# Annual Reserve Report

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Long Point 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.

Long Point Reserve was acquired by the TLC in 2005 and protects 386.5 hectares of saltmarsh, coastal grassland and woodland at Moulting Lagoon near Swansea. The Reserve adjoins a Ramsar listed wetland. The management of the Reserve is guided by the Long Point 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.

Cover image: Saltmarsh on Long Point overlooking Moulting Lagoon Ramsar site. Photo: Heath Holden.

## LONG POINT RESERVE SCORECARD 2016-17

<b>Monitoring</b>			
<b>Target</b>	<b>Indicator</b>	<b>Status 2016-17</b>	<b>Trend</b>
Saltmarsh	Floristic diversity	3 species/site	Flat
	Structural complexity	1.5 strata/site	Flat
	Vertebrate fauna diversity	1.25 species/site 5 species total	No data 2016-17
Coastal woodland	Floristic diversity	7.3 species/site	Flat
	Structural complexity	3.6 strata/site	Flat
	Canopy recruitment	2.1 cohorts per site	Flat
	Vertebrate fauna diversity	7.75 species per site 11 species in total	No data 2016-17
Coastal grassland	Floristic diversity	3.8 species/site	Flat
	Structural complexity	2.6 strata/site	Flat
	Vertebrate fauna diversity	3.75 species per site 7 species in total	No data 2016-17
<b>Management Effectiveness</b>			
<b>Strategy</b>	<b>Indicator</b>	<b>Status 2016-17</b>	<b>Trend</b>
Weed management	Weed extent	50 ha	Flat
	Treatment extent (hectares)	10 ha	Decrease
Stock exclusion	Instances of stock access	0	Flat
Fire management	Number of unplanned fires	0	Decrease
Feral animal control	Cat abundance	1 observation 1 site	No data 2016
	Rabbit abundance	1 observation 1 site	No data 2016
Woodland restoration	% native tree cover	To be assessed in 2017-18	
Community engagement	# events at the Reserve	1	Flat
	# of volunteer activities /days	1 – 45 days	Flat
	# research and education projects	3 projects	Flat

## MONITORING SUMMARY

<b>Saltmarsh</b>		<b>Status: Very Good</b>
<b>Goal</b> Maintain the condition of saltmarsh		<b>Outcome: On Track</b>
<p><b>Description</b> Saltmarsh is the most extensive ecosystem at Long Point. A mosaic of vegetation dominated by succulent species and salt tolerant sedges occupy low lying ground around the margins of Moulting Lagoon. Extensive tidal pools provide important habitat for shore birds, including migratory species. The salt marsh vegetation is in excellent condition and is almost entirely undisturbed. A whitebait aquaculture trial site in the southern part of the reserve has been partially rehabilitated to restore natural tidal inundation patterns. The low diversity of plants and terrestrial vertebrates is to be expected given the habitat type.</p>		 <p>Succulent saline herbfield. Photo: Heath Holden.</p>
<b>Ecological indicator</b>	<b>Status</b>	<b>Trend (Data from 2014)</b>
Floristic diversity	3 species/site	No data for 2016/17
Structural complexity	1.5 strata/site	No data for 2016/17
Vertebrate fauna diversity	1.25 species/site 5 species total	No data for 2016/17
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• Spotted-tailed quolls were recorded in saltmarsh – not expected!</li> <li>• Weeds are absent from this vegetation type</li> <li>• Feral cats are present in low numbers</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Establish monitoring program for coastal bird species with a special focus on shore-birds, waders and migratory species</li> <li>• Establish cat control program with a focus on saltmarsh, as ground nesting birds are especially susceptible to predation</li> </ul>		

<b>Coastal Woodland</b>		<b>Status: Fair</b>
<b>Goal</b> Floristic diversity and structural complexity is improved		<b>Outcome: On Track</b>
<b>Description</b> Coastal woodland on the Reserve is in poor condition as a result of a long history of vegetation clearance, frequent burning, gorse, and grazing by stock and rabbits. The most obvious effect of past disturbance has been the loss of canopy species such as white gum and black peppermint, and the ongoing decline of remaining trees such as black wattle. While the impact of changes to the vegetation has had a relatively minor impact on populations of larger terrestrial vertebrates such as wallabies and devils, the impact on woodland bird diversity has been significant.		Woodland revegetation. Photo: Heath Holden. 
<b>Ecological indicator</b>	<b>Status</b>	<b>Trend</b>
Floristic diversity	7.3 species/site	No data for 2016/17
Structural complexity	3.6 strata/site	No data for 2016/17
Canopy recruitment	2.1 cohorts per site	Unknown
Vertebrate fauna diversity	7.75 species per site 11 species in total	No data for 2016-17
<b>Key findings</b>		
<ul style="list-style-type: none"> <li>• Floristic diversity of vegetation is very low</li> <li>• Structural complexity of vegetation is low. Some of the strata that would be expected in a healthy coastal woodland, such as tall shrubs or native herbs, are absent at Long Point.</li> <li>• In its natural state, coastal woodland would be dominated by mature eucalypts. At Long Point eucalypts are almost entirely absent and there is no sign of recruitment.</li> <li>• Populations of native terrestrial vertebrates seem robust, including the Tasmanian devil. Populations of introduced species such as rabbits and cats are relatively low.</li> <li>• The diverse suite of bird species that typically occupies coastal woodland sites has been significantly impacted by changes to the vegetation. Species that do well in degraded landscapes, such as noisy minors and magpies, are present in high numbers.</li> </ul>		
<b>Recommendations</b>		
<ul style="list-style-type: none"> <li>• Prepare a long term restoration plan that aims to improve the floristic diversity and structural complexity of the vegetation</li> <li>• Develop a monitoring strategy for woodland birds, using skilled volunteers from the local community. This element of the fauna seems to have been most impacted by woodland degradation at Long Point and will be a key indicator of restoration progress.</li> </ul>		

<b>Coastal grassland</b>		<b>Status: Good</b>
<b>Goal</b> Condition of coastal grasslands is improved		<b>Outcome: On Track</b>
<p><b>Description</b> Coastal grassland at Long Point is in variable condition. In elevated areas such as Barkstand Point, vegetation clearance and ongoing processes have resulted in degraded grassland in areas that were probably once coastal woodland. Gorse infestations are an ongoing and significant threat, despite ten years of dedicated weed control work. Of additional concern is the presence of exotic pasture grasses such as sweet vernal, which make up a significant proportion of the overall vegetation cover. Tussock grasslands occur on the margin of saltmarsh in low lying areas of the reserve. These areas are in somewhat better condition, with less extensive infestations of weeds, and a greater dominance of native species.</p>		
		Native Poa grass. Photo: Heath Holden
<b>Ecological indicator</b>	<b>Status</b>	<b>Trend</b>
Floristic diversity	3.8 species/site	No data for 2016/17
Structural complexity	2.6 strata/site	No data for 2016/17
Vertebrate fauna diversity	3.75 species per site 7 species in total	Unknown
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• Grassland diversity has been severely reduced by past management practices.</li> <li>• Cover of exotic pasture species is high</li> <li>• High macropod populations are over-grazing native vegetation</li> <li>• No evidence of threatened species that could be expected to occur in this habitat type, such as eastern quoll and eastern barred bandicoot.</li> <li>• A neighbour's fire accidentally spread into a 1 ha area of coastal grassland at Long Point in July 2015. Regeneration is good in the burnt area.</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Continue weed eradication efforts</li> <li>• Survey for native annual herbs in November-December 2016 and identify 'high-quality' grassland areas</li> <li>• Investigate the viability of grassland restoration with a focus on increasing floristic diversity and structural complexity.</li> <li>• Consider undertaking a cool burn in grassland areas of Long Point for ecological purposes.</li> </ul>		

## MANAGEMENT EFFECTIVENESS SUMMARY

<b>Weed management</b>		
<b>Key objective(s)</b> All areas of gorse have received primary treatment by 2017  Gorse extent is reduced to < 5 hectares by 2020		<b>Status 2016-17</b> <b>On-track</b>
<b>Strategy description</b> Gorse is widespread at Long Point. Almost 10 years of weed control works has reduced weed density by 90%, but the long viability of seed requires ongoing weed control. Weed mapping and control is continuing.		Treated gorse on Long Point. Photo: TLC. 
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
Weed extent	50 ha	Flat
Treatment extent (hectares)	10 ha	Flat
<b>Progress in 2016-17</b> <ul style="list-style-type: none"> <li>• 3 days of weed spraying was undertaken by weed contractor Sean Guinane across all of the Long Point and Central Long Point (low sand dune near entrance gate). Areas burnt in 2015 were assessed for spraying, but had insufficient regrowth. The work was funded by a grant from NRM South. It was noted that there was extensive germination of gorse seedlings, likely due to the very wet winter and spring in 2016. Follow-up work in 2017 will be critical to ensure that these plants do not mature and set seed.</li> <li>• An International Student Volunteer team of 9 volunteers spent 5 days cutting and painting gorse.</li> <li>• A research project investigating the impact of residual herbicide on native plant species has been completed by volunteer, Dr Laura Williams, and determined that no herbicide was detectable in the soil, and that there is no evidence of an impact on species richness as a result of herbicide use. This project also showed that the density of gorse has reduced by more than 90%.</li> </ul>		
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>• Update weed mapping annually.</li> <li>• Continue weed control works, focussing on Barkstand Point (spraying) and isolated patches in saline grasslands to east of the Long Point.</li> </ul>		

<b>Stock exclusion</b>		
<b>Key objective(s)</b> Access by neighbouring stock is prevented (ongoing)		<b>Status 2016-17</b> <b>On-track</b>
<b>Strategy description</b> Prior to acquisition by TLC, sheep had been grazed on Long Point Reserve and had caused significant degradation in grassland and woodland areas. Sheep are still grazed on the neighbouring property to the west (The Grange). A fence along the western boundary prevents stock from accessing the Reserve and is maintained with cooperation of the neighbouring landholders.		Long Point proposed fence line: TLC Report  <p>The map shows the Long Point Reserve with a proposed fence line (red dashed line) along its western and southern boundaries. It includes contours, existing vehicle tracks, and areas of gorse control (orange and green). A scale bar indicates 0 to 0.8 km. The legend identifies: Long Point Reserve (red outline), Contours (grey lines), Existing vehicle tracks (black dashed lines), Gorse control undertaken (orange), Uncontrolled gorse (green), Proposed gorse control (green with dots), and Proposed fence line (red dashed line). The map is titled 'Long Point Reserve - proposed fence line' and includes a legend and a small inset map of Tasmania.</p>
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
Instances of stock access	0	Flat
<b>Progress in 2016-17</b>		
<ul style="list-style-type: none"> <li>• Boundary fences were checked and no repairs were required.</li> <li>• No incursions of sheep have been detected or reported at Long Point since fences were upgraded in 2009.</li> </ul>		
<b>Key recommendations for future management</b>		
<ul style="list-style-type: none"> <li>• Continue to monitor fences and repair fences when necessary.</li> </ul>		

<b>Community engagement</b>		
<b>Key objective(s)</b> <ul style="list-style-type: none"> <li>• People visit the Reserve every year for recreation, education and volunteering.</li> </ul>		<b>Status 2016-17</b> <b>On-track</b>
<b>Strategy description</b> TLC encourages public access to Long Point Reserve and provides the community with a range of recreational, educational, research and volunteering opportunities. The local community, volunteers, the indigenous community and other stakeholders regularly participate in planning and land management activities and have made a fantastic contribution to TLC efforts to eradicate gorse for over ten years. Bird enthusiasts visit the reserve to participate in the annual Moulting Lagoon bird count on the neighbouring Ramsar listed wetlands, and a small steady stream of students and visitors continue to appreciate the Reserve's unique environments.		 <p>International student volunteers controlling gorse. Photo: Denna Kingdom</p>
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
# events – visitors at the Reserve	0 – 6 visitors	Flat
# of volunteer activities at the Reserve	1 event – 45 volunteer days	Flat
# research and education projects	3 projects	Flat
<b>Progress in 2016-17</b> <ul style="list-style-type: none"> <li>• Regular communications have been maintained with the owners and manager of The Grange.</li> <li>• UTas PhD student, John Aalders, continues to research the effects of variations in salinity on saltmarsh vegetation and invertebrate diversity.</li> <li>• Long Point continues to be used by Parks and Wildlife Service volunteers for the twice-annual Moulting Lagoon shorebird count.</li> <li>• A volunteer, Dr Laura Williams, researched the potential impact of herbicide use on native plant species, and has submitted a scientific paper for publication in Environmental Management and Restoration.</li> <li>• A team of eight International Student volunteers worked on weed control, rubbish removal and woodland restoration.</li> </ul>		
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>• Continue to provide opportunities for people to connect with the Reserve.</li> <li>• Continue to maintain relationships with neighbours</li> <li>• Consider removing this strategy from individual reserve management plans and reporting all relevant TLC activities across Tasmania in a separate report. This approach will be easier to report, more reflective of changes over time, and is a goal of TLC's Strategic Plan.</li> </ul>		

<b>Feral animal control</b>		
<b>Key objective(s)</b>		<b>Status 2016-17</b> <b>On-track</b>
<ul style="list-style-type: none"> <li>Investigate the feasibility of reducing feral animal numbers by 2016</li> </ul>		
<b>Strategy description</b>		Low numbers of feral cats occur on the reserve: Photo TLC
<p>Feral cats pose a significant threat to wildlife on the Reserve and in particular to nesting shore birds. Rabbits are in low numbers at present, but may affect the vegetation of grassland and woodland areas if numbers increase. Eradication of a feral animal species is usually impossible to achieve. However, a variety of control methods can effectively reduce populations and consequent impacts to an acceptable level. Methods available including shooting, trapping, baiting and fencing. As animals are often widespread and mobile, it is always beneficial to work with neighbours to tackle populations at a regional level.</p>		
<b>Indicator</b>	<b>Current status (2014)</b>	<b>Trend</b>
Cat abundance	1 observation 1 site	No data 2016-17
Rabbit abundance	1 observation 1 site	No data 2016-17
<b>Progress in 2016-17</b>		
<ul style="list-style-type: none"> <li>Baseline data on rabbit and cat abundance has been collected.</li> <li>Feral animal control (especially cats) has been identified as a priority.</li> <li>TLC was approved for release of a new strain of rabbit calicivirus, through the Invasive Species CRC, however rabbit numbers were too low to proceed. TLC have been advised that release will be likely approved if rabbit numbers increase, with a threshold of 20 rabbits per 20 min spotlight count required to ensure the disease becomes established.</li> </ul>		
<b>Key recommendations for future management</b>		
<ul style="list-style-type: none"> <li>Conduct feral animal management scoping paper.</li> <li>If rabbit numbers increase, seek out a release of rabbit calicivirus.</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 2016-17</b> <b>On-track</b>
<b>Strategy description</b> Under the historic management regime, fire was used as a tool to encourage the growth of spring grass and suppress gorse. This practice has had significant impacts on vegetation structure and diversity. Controlled burning is currently being trialled as a tool for gorse management in areas where gorse has formed impenetrable stands that are difficult to control by other means.	A controlled burn at Long Point. Photo: Denna Kingdom. 	
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
No. of unplanned fires	No unplanned fire	Stable
<b>Progress in 2016-17</b> <ul style="list-style-type: none"> <li>There were no unplanned fires on Long Point 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>Finalise the ecological burn plan to maintain the natural values of the Reserve.</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>		

<b>Woodland restoration</b>		
<b>Key objective(s)</b>		<b>Status 2016-17</b> <b>On-track</b>
<ul style="list-style-type: none"> <li>Native plant species will be the dominant cover class in the revegetation zone by 2020.</li> </ul>		
<b>Strategy description</b>		
<p>At Long Point Reserve there has been a history of grazing, timber harvesting and frequent firing, which has resulted in degraded areas of coastal forest. Prior to European settlement, eucalypts would have formed the canopy of woodland areas. <i>Eucalyptus viminalis</i> is likely to have been the dominant species on sandy substrates such as Long Point, while <i>Eucalyptus amygdalina</i> is likely to have been dominant on dolerite substrates such as Barkstand Point. Following eradication of gorse in these areas, revegetation using local provenance tree and understorey shrub seedlings will be undertaken.</p>		
Protecting tree plantings. Photo: Denna Kingdom.		
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
% native tree cover	To be assessed in 2017-18	
<b>Progress in 2016-17</b>		
<ul style="list-style-type: none"> <li>Tree guards have been maintained and removed wherever possible</li> <li>An experiment using large removable wire guards to allow saplings to grow beyond wallaby browsing height was established in Jan 2016, protecting predominantly <i>Eucalypt viminalis</i> saplings. By Jul 2016 the <i>Eucalypt</i> saplings that were protected by these wire guards had increased height by 20 – 40 cm. An additional 20 cm of height is required for saplings to be taller than the maximum reach of browsing wallabies. These wire tree guards can be removed in spring/summer 2017 and re-used on other saplings.</li> </ul>		
<b>Key recommendations for future management</b>		
<ul style="list-style-type: none"> <li>Remove <i>Allocasuarinas</i> from native grassland above Round Hole, as per recommendation by Prof. Jamie Kirkpatrick.</li> <li>Expand use of wire tree guards, with priority on protecting canopy species first.</li> <li>Identify other methods for increasing native woodland cover.</li> </ul>		