

# Conservation Action Plan

## Tenterfield mint-bush (*Prostanthera staurophylla*)

This plan has been prepared in accordance with the requirements of s.78C of the National Parks and Wildlife Regulation 2019 (Reg.) in relation to an Asset of Intergenerational Significance (AIS) as declared under s.153G of the *National Parks and Wildlife Act 1974*.

### Site details

AIS site	AIS-ES-138
Site location	An area of 4 hectares in Mount Mackenzie Nature Reserve
NPWS contact	Project Officer Threatened Species, Northern Inland Branch

### Environmental values

This table sets out the environmental values for which the land was listed as an AIS (Reg. 78C(3)(a)).

Identified value(s)	Value description
Important habitat for Tenterfield mint-bush	Tenterfield mint-bush is an endangered shrub that grows 3.5 metres in height, with purple, mauve or white flowers. The species occurs in shallow skeletal soil in rock crevices. The total wild population of this species occurs at a single site and is currently estimated to contain less than 150 adult plants.

## Key risks to environmental values

This table sets out the key risks to the environmental values of the land (Reg. 78C(3)(b)).

Key risk(s)	Description
Inappropriate fire regimes	Inappropriate fire frequency and intensity may lead to a decline or extinction of Tenterfield mint-bush at this site. This risk is exacerbated by the species restricted distribution, small population size and poor understanding of fire ecology.
Feral herbivores and pigs	Damage to individual plants, and degradation of habitat, by feral pigs and feral goats through browsing, trampling, wallowing and rooting may lead to a decline of Tenterfield mint-bush at the site.
Pathogens, diseases and microorganisms	Infection and spread of <i>Phytophthora cinnamomi</i> may result in mortality of individual plants. This risk is exacerbated by the small population size at this site.
Interactions with native species	Degradation of habitat by wallabies and kangaroos through trampling and browsing, may lead to a reduction in suitable habitat and affect the persistence of Tenterfield mint-bush plants at the site.
Anthropogenic climate change	Changes to weather patterns and climatic conditions as a result of anthropogenic climate change that increases the frequency and intensity of drought and fire events may exceed the species adaptive capacity and reduce survivorship of Tenterfield mint-bush at the site. This risk is exacerbated by the small population size at this site.
Disturbance	Visitors use that lead to degradation of habitat and damage to individuals by trampling of plants and potential introduction of pathogens.

## Conservation activities

This table sets out the conservation activities required to:

1. Control, abate or mitigate the key risks and
2. maintain, restore and remediate the environmental values of the land (Reg. 78C(3)(c)).

Key risk(s)	Impacted site(s)	Conservation activities
Inappropriate fire regimes	All sites	<ul style="list-style-type: none"> <li>• Develop guidance on the appropriate fire management for the habitat of the Tenterfield mint-bush within 12 months of the adoption of this plan and update as required. This guidance must provide for: <ul style="list-style-type: none"> <li>- maintenance of an appropriate fire regime by developing and implementing a site-specific burn plan for the declared areas</li> <li>- implementation of any required fire protection and response measures in the declared areas</li> <li>- integration of site-specific requirements into NPWS and NSW Government bushfire planning, risk management and operational response arrangements.</li> </ul> </li> <li>• Implement fire management consistent with the guidance.</li> </ul>

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Key risk(s)	Impacted site(s)	Conservation activities
Feral herbivores and pigs	All sites	<ul style="list-style-type: none"> <li>To the extent practicable, reduce feral goat and pig densities to levels that are not having an ecologically significant impact on the Tenterfield mint-bush, and maintain densities at or below those levels, by trapping, baiting and shooting.</li> </ul>
Pathogens, diseases and microorganisms	All sites	<ul style="list-style-type: none"> <li>Implement hygiene protocols as outlined in the DPIE Hygiene Guidelines (as published April 2020), as varied by any written advice from the Secretary from time to time for the purposes of this declared area.</li> <li>Develop a hygiene management plan including emergency response procedures in the event of an outbreak or evidence of serious impacts of pathogenic phytophthora, within 12 months of the adoption of this plan.</li> <li>Implement and update the hygiene management plan.</li> </ul>
Interactions with native species	All sites	<ul style="list-style-type: none"> <li>If required, install and maintain protective fencing and movement barriers (e.g. branches, logs, rocks) to prevent impacts from trampling and browsing by macropods.</li> </ul>
Disturbance	All sites	<ul style="list-style-type: none"> <li>Undertake periodic reviews to identify whether visitor use is having an adverse impact on Tenterfield mint-bush. If adverse impacts are observed implement action to mitigate the impacts. This may include: <ul style="list-style-type: none"> <li>- reducing visits to the site</li> <li>- installation of signage or more discrete marking systems to delineate exclusion areas to prevent spread of pathogens</li> <li>- installation of barriers or other suitable protective structures around plants to minimise impacts of visitor use.</li> </ul> </li> </ul>
All risks	All sites	<ul style="list-style-type: none"> <li>Establish and maintain ex-situ living collection and/or seedbank from a genetically representative sample of the population.</li> <li>Augment the existing population and establish two new wild populations with ex-situ material.</li> </ul>

## Other land management activities

Within the declared land there are existing assets and infrastructure of NPWS and other external service providers, including public utilities.

Maintenance operations (including inspection, emergency works and routine and standard maintenance) that are exempt development in accordance with the *Environmental Planning and Assessment Act 1979*, and which are performed on and around existing assets and infrastructure, are authorised under this conservation action plan (CAP) provided such operations are taken in a manner that aims to minimise the risk to the declared environmental values of the land and with any other required consents or approvals.

All maintenance operations on the declared land are to be undertaken in accordance with this CAP.

## Measuring and reporting

This table sets out the requirements for measuring and reporting on health and condition (Reg. 78C(3)(d)).

Attribute	Metric	Method
Health and condition of the Tenterfield mint-bush population	Population estimate	Design, and implement every three years, monitoring to generate an estimate of the number of mature plants and seedlings of Tenterfield mintbush in the population.

A report on the health and condition of the value for which this AIS was declared will be prepared and published on the Department of Planning and Environment website: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au). The report will summarise the baseline and current health and condition of the values of the declared land and its overall trajectory.

## Evaluation of conservation action plans

This CAP will be amended or replaced as new information becomes available that helps improve our management of the identified asset (Reg. 78H).

The Secretary must appoint a scientist, or a panel of scientists, to conduct a review, as soon as possible after the period of five years from the first approval of a CAP, to examine whether CAPs have been effectively implemented (Reg. 78J(1)).

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Approved by	Atticus Fleming, Acting Coordinator General, Environment and Heritage
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