



# **Conservation Action Plan**

### Solanum armourense

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-E0-077
Site location	An area of 936 hectares in Kanangra-Boyd National Park
NPWS contact	Area Manager, Kanangra Area, Blue Mountains 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 <i>Solanum</i> <i>armourense</i>	<i>Solanum armourense</i> is an endangered shrub, growing up to 1.8 metres tall and produces light to dark purple flowers with orange stamens. This small shrub occurs in eucalypt woodland, in shallow soil on steep rocky hillsides associated with limestone/calcite-rich sediments and landforms.

# 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 that kills adult plants, depletes the soil stored seedbank, and limits germination and recruitment may lead to a decline or extinction of <i>Solanum armourense</i> at the site.
	This risk is exacerbated by the restricted distribution and small population size of <i>Solanum armourense</i> .
Weeds	Habitat degradation and competition through invasion, establishment, intensification and spread of weeds (e.g., serrated tussock) to the extent that recruitment or establishment of plants is impaired.
Feral herbivores	Damage to individual plants, and degradation of habitat, by introduced herbivores, such as feral deer through browsing and trampling.
Feral pigs	Damage to individual plants, and degradation of habitat, by feral pigs through browsing and trampling.
Pathogens, diseases and microorganisms	Infection by the tomato red spider mite and other insects that can result in mortality of individual plants.
Disturbance	Authorised infrastructure maintenance activities (e.g., road and trail maintenance) that leads to degradation of habitat and damage to individuals by slashing and herbicide use at the site.

# **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	• Develop guidance on the appropriate fire management for the habitat of the <i>Solanum armourense</i> within 12 months of the adoption of this plan and update as required. This guidance must provide for:
		<ul> <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>
		• Implement fire management consistent with the guidance.
Weeds	All sites	<ul> <li>Remove weed species to the extent required to ensure weeds do not have a negative impact on <i>Solanum</i> <i>armourense</i>, by targeted application of physical, biological and/or chemical weed control.</li> </ul>
Feral herbivores	All sites	• To the extent practicable, reduce the density of feral deer to a level that is not having an ecologically significant impact on the <i>Solanum armourense</i> , and maintain the density at or below that level, by shooting and other approved integrated control measures.
Feral pigs	All sites	• To the extent practicable, reduce the density of feral pigs to a level that is not having an ecologically significant impact on <i>Solanum armourense</i> , and maintain the density at or below that level, by trapping, baiting and shooting.
Pathogens, diseases and microorganisms	All sites	<ul> <li>Implement hygiene protocols as outlined in the DPE Hygiene Guidelines (as published in April 2020) or as varied by any written advice from the Secretary 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 impact of tomato red spider mite or other insects, within 12 months of the adoption of this plan and update as required.</li> </ul>

#### Solanum armourense: Conservation Action Plan

DisturbanceAll sitesUndertake periodic reviews to identify whether infrastructure maintenance is having an adverse impact on Solanum armourense. If adverse impacts are observed implement actions to mitigate the impacts. This may include: - upgrade/realignment of trails to avoid known plants/habitat - installation of signage or more discrete marking systems to delineate exclusion areas to prevent slashing or herbicide use near site.Implement guidance for staff, utility managers, and contractors as required, about appropriate maintenance practices that minimise or prevent impacts to the Solanum armourense population and habitat.	Key risk(s)	Impacted site(s)	Conservation activities
	Disturbance	All sites	<ul> <li>infrastructure maintenance is having an adverse impact on <i>Solanum armourense</i>. If adverse impacts are observed implement actions to mitigate the impacts. This may include: <ul> <li>upgrade/realignment of trails to avoid known plants/habitat</li> <li>installation of signage or more discrete marking systems to delineate exclusion areas to prevent slashing or herbicide use near site.</li> </ul> </li> <li>Implement guidance for staff, utility managers, and contractors as required, about appropriate maintenance practices that minimise or prevent impacts to the Solanum</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 <i>Solanum armourense</i> population	Population count	Design, and implement every 2 years, monitoring to generate a count of the number of individuals in the population.

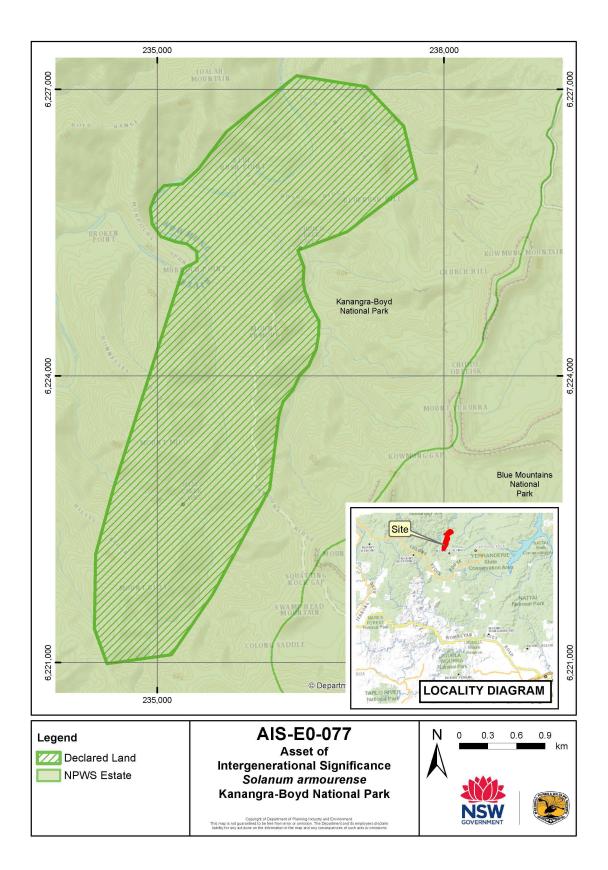
A report on the health and condition of the value for which this AIS was declared will be prepared and published on the Department of Planning and Environment website: <u>www.environment.nsw.gov.au</u>. The report will summarise the baseline and current health and condition of the values of the declared 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)).

#### Solanum armourense: Conservation Action Plan



### *Solanum armourense*: Conservation Action Plan

Date prepared	March 2023
Date approved	June 2023
Approved by	Atticus Fleming, Acting Coordinator General, Environment and Heritage Group
Due for review	June 2028

Environment and Heritage, Department of Planning and Environment

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