

# Conservation Action Plan

## Buttercup doubletail (*Diuris aequalis*)

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-107, AIS-ES-108
Site location	An area of 1996 hectares in Kanangra-Boyd National Park An area of 49 hectares in Mares Forest 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 buttercup doubletail	The endangered buttercup doubletail is a terrestrial orchid with chrome yellow flowers. The species is known as a 'donkey orchid' for its two widely spaced, ear-like petals at the top of the flower. The term 'doubletail' refers to the two long, green leaf-like sepals found at the base of the flower, which often curve across each other. This species grows in forests and low open woodlands with grassy understorey.

## 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
Weeds	Habitat degradation and competition through invasion, establishment, intensification and/or spread of weeds (e.g., <i>Anthoxanthum odoratum</i> ) to the extent that recruitment or establishment of plants is impaired.
Feral herbivores	Damage to individual plants and degradation of buttercup doubletail habitat by introduced herbivores, such as deer, through browsing and trampling.
Feral pigs	Damage to individual plants and degradation of habitat by feral pigs through browsing, trampling and rooting may lead to a decline of buttercup doubletail at the sites.
Interactions with native species	Degradation of buttercup doubletail habitat from grazing by native herbivores to the extent that recruitment or establishment of plants is impaired. Competition with other native shrubs and grasses for light, space and resources may impact persistence of Buttercup doubletail at the sites.
Disturbance	Authorised infrastructure maintenance activities (e.g., road and trail maintenance) that lead to degradation of habitat and damage to individuals by slashing and herbicide use at the sites. Damage to individual plants and degradation of buttercup doubletail habitat from illegal dumping to the extent that recruitment or establishment of plants is impaired. This risk is exacerbated by the small population size and poor recruitment of the buttercup doubletail.

## 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
Weeds	All sites	<ul style="list-style-type: none"> <li>Remove weed species to the extent required to ensure weeds do not have a negative impact on the buttercup doubletail by targeted application of physical, biological and/or chemical weed control.</li> </ul>
Feral herbivores	All sites	<ul style="list-style-type: none"> <li>To the extent practicable, reduce the density of feral deer to a level that is not having an ecologically significant impact on the buttercup doubletail, and maintain the density at or below that level by shooting and other approved integrated control measures.</li> </ul>
Feral pigs	All sites	<ul style="list-style-type: none"> <li>To the extent practicable, reduce the density of feral pigs to level that is not having an ecologically significant impact on the buttercup doubletail, and maintain the density at or below that level by trapping, baiting, and shooting.</li> </ul>

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Key risk(s)	Impacted site(s)	Conservation activities
Interactions with native species	All sites	<ul style="list-style-type: none"> <li>Where practicable, and as required, install and maintain protective barriers around plants to prevent grazing and trampling from native herbivores.</li> <li>Where impacts on buttercup doubletail habitat are observed, maintain habitat condition by removal of native grasses, shrubs and leaf litter to improve recruitment and establishment of the buttercup doubletail.</li> </ul>
Disturbance	All sites	<ul style="list-style-type: none"> <li>Undertake periodic reviews to identify whether infrastructure maintenance and illegal dumping is having an adverse impact on the buttercup doubletail. If adverse impacts are observed implement actions to mitigate the impacts. This may include: <ul style="list-style-type: none"> <li>upgrade/realignment of trails to avoid known plants/habitat</li> <li>implement compliance activities to discourage illegal dumping</li> <li>installation of signage or more discrete marking systems to delineate exclusion areas to prevent slashing or herbicide use near sites.</li> </ul> </li> <li>If required, develop and implement appropriate guidance for staff, utility managers, council and contractors about appropriate maintenance practices that minimise impacts to the buttercup doubletail population and habitat.</li> </ul>
All risks	All sites	<ul style="list-style-type: none"> <li>Maintain ex-situ seedbank from a genetically representative sample of the population in partnership with an appropriate seedbank facility.</li> <li>If required, augment the existing population 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 undertaken 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 buttercup doubletail population	Population count	Design, and implement every 3 years, monitoring to generate a count of the number of mature plants in the population.
	Area of occupancy	Design and implement every 3 years, an assessment to calculate the area of occupancy of buttercup doubletail at the sites.

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 assets (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 Group
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