

Conservation Action Plan

Aponogeton queenslandicus

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-E0-007
Site location	An area of 184 hectares in Nocoleche Nature Reserve
NPWS contact	Assistant 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 <i>Aponogeton queenslandicus</i>	<i>Aponogeton queenslandicus</i> is a perennial, tuberous-rooted aquatic plant, with submerged and floating leaves and yellow flowers. The species grows in freshwater ephemeral habitats in drier regions, particularly gilgais in Brigalow scrub, melon-holes, ponds and roadside ditches. This aquatic species is ephemeral and relies heavily on water availability.

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 spread of weeds to the extent that recruitment or establishment of plants is impaired.
Feral herbivores	Damage to individual plants and degradation of <i>Aponogeton queenslandicus</i> habitat by introduced herbivores, such as feral goats, through grazing and trampling.
Feral pigs	Damage to individual plants, and degradation of habitat, by feral pigs through grazing, trampling, wallowing and rooting may lead to a decline of <i>Aponogeton queenslandicus</i> at the site.
Interactions with native species	Competition with other native aquatic plants for light, space and resources may impact persistence of <i>Aponogeton queenslandicus</i> at the site.

Key risk(s)	Description
Alteration of hydrological regimes	Changes in size, frequency, and duration of floods in the Paroo River and associated floodplain, that limits regeneration of <i>Aponogeton queenslandicus</i> may affect the persistence of the species at the site. This risk is exacerbated by the small population size and extent of <i>Aponogeton queenslandicus</i> .
Disturbance	Authorised infrastructure maintenance activities (e.g., trail maintenance) and visitor use that leads to the degradation of habitat and damage to individuals by altering drainage patterns trampling of individual plants and vehicles and machinery use.

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"> • Remove weed species to the extent required to ensure weeds do not have a negative impact on <i>Aponogeton queenslandicus</i>, by targeted application of physical, biological and/or chemical weed control.
Feral Herbivores	All sites	<ul style="list-style-type: none"> • To the extent practicable, reduce the density of feral goats to a level that is not having an ecologically significant impact on the <i>Aponogeton queenslandicus</i>, and maintain the density at or below that level by shooting and other approved integrated control measures such as mustering and removal.
Feral pigs	All sites	<ul style="list-style-type: none"> • To the extent practicable, reduce the density of feral pigs to a level that is not having an ecologically significant impact on the <i>Aponogeton queenslandicus</i>, and maintain the density at or below that level by trapping, baiting and shooting.
Interactions with native species	All sites	<ul style="list-style-type: none"> • Where impacts on <i>Aponogeton queenslandicus</i> and its habitat are observed, develop appropriate management strategies and techniques to reduce competition from encroaching native aquatic plants.

Key risk(s)	Impacted site(s)	Conservation activities
Disturbance	All sites	<ul style="list-style-type: none"> • Undertake periodic reviews to identify whether infrastructure maintenance is having an adverse impact on <i>Aponogeton queenslandicus</i>. If adverse impacts are observed implement actions to mitigate the impacts. This may include: <ul style="list-style-type: none"> - Implementing measures to maintain natural drainage patterns - installation of signage or more discrete marking systems to delineate exclusion areas to prevent slashing or herbicide use near sites. - installation of barriers or other suitable protective structures to minimise impacts from vehicle access. • If required, develop and implement guidance for staff, utility managers, and/or contractors about appropriate maintenance practices that minimise impacts to the <i>Aponogeton queenslandicus</i> population and habitat.
All risks	All sites	<ul style="list-style-type: none"> • Establish ex-situ seedbank from a genetically representative sample of the population in partnership with a suitable seedbank facility. • If required, augment the existing population or establish a new population with ex-situ material.

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 <i>Aponogeton queenslandicus</i> population	Population estimate	Design, and implement monitoring to generate an estimate of the number of individuals in the population following inundation of habitat and/or when suitable growing conditions occur.
	Area of occupancy	Design, and implement an assessment to calculate the area of occupancy of <i>Aponogeton queenslandicus</i> at the sites following inundation of habitat and/or when suitable growing conditions occur.

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. 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)).

Aponogeton queenslandicus:
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Legend

-  Declared Land
-  NPWS Estate

AIS-E0-007
Asset of
Intergenerational Significance
Aponogeton queenslandicus
Nocoleche Nature Reserve

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Date prepared	March 2023
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Approved by	Atticus Fleming, Acting Coordinator General, Environment and Heritage Group
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Environment and Heritage, Department of Planning and Environment,
Locked Bag 5022, Parramatta NSW 2124
Phone: 1300 361 967; email: info@environment.nsw.gov.au; www.environment.nsw.gov.au
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