



NSW National Parks and Wildlife Service

Draft Conservation Action Plan

Shark Bay bandicoot (*Perameles bougainville*)

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-E0-219
Site location	An area of 2,228 hectares in Sturt National Park
NPWS contact	Senior Project Manager, NPWS feral predator-free areas - partnership projects

Environmental values

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

Identified values	Value description
Feral predator-free area and important habitat to enable introduction, establishment and maintenance of viable wild populations of Shark Bay bandicoot as a functionally equivalent bandicoot species to relatives within western barred bandicoot species complex, currently listed as extinct in NSW.	The Shark Bay bandicoot is a small marsupial and the only surviving member of the western barred bandicoot species complex which were once common over much of the southern arid regions of Australia. The Shark Bay bandicoot lives in the wild on Bernier, Dorre and Faure islands in Shark Bay, Western Australia and within feral predator-free areas. It is nocturnal and feeds on insects, seeds, roots and small animals. When not feeding, the Shark Bay bandicoot shelters in well camouflaged nests made from vegetation, such as grasses, under low shrubs.

Key risks to environmental values

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

Key risks	Description
Inappropriate fire regimes	Inappropriate fire timing, frequency and/or intensity that alters vegetation composition and structure may lead to a reduction in suitable habitat, food availability and/or affect the persistence of the Shark Bay bandicoot at the site.
Feral predators	Predation of the Shark Bay bandicoot by foxes, feral cats and wild dogs, in the event of an incursion into the feral predator-free area.
Feral herbivores and pigs	Competition for resources and degradation of Shark Bay bandicoot habitat by introduced herbivores, such as rabbits and goats, through grazing and trampling, in the event of an incursion into the feral predator-free area. Direct predation, competition, habitat degradation and/or disease transmission by feral pigs may lead to a decline of the Shark Bay bandicoot at the site, in the event of an incursion into the feral predator-free area.
Disturbance	Damage to the conservation fences and associated infrastructure from authorised maintenance activities, unauthorised activities, fires, floods and/or vandalism may increase the risk of feral predator, feral herbivore and/or feral pig incursion.
Inbreeding depression and loss of genetic diversity	Inbreeding depression within the Shark Bay bandicoot population that leads to a reduction in the survival of individuals and recruitment, may affect persistence of the species at the site. Low genetic diversity that limits the ability of the Shark Bay bandicoot to adapt to the host environment, may affect persistence of the species at the site.
Unsustainable population levels	Competition for resources and habitat within the Shark Bay bandicoot population in the feral predator-free area may increase to levels that exceed the carrying capacity of the environment. This may lead to resource depletion, habitat degradation and Shark Bay bandicoot population declines.

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 risks	Impacted site	Conservation activities
Inappropriate fire regimes	AIS-E0-219	<ul style="list-style-type: none"> • Develop guidance on the appropriate fire management for the habitat of the Shark Bay bandicoot within 12 months of adoption of this plan and update as required. This guidance must provide for: <ul style="list-style-type: none"> - maintenance of an appropriate fire regime by developing and implementing a site-specific burn plan for the declared area - implementation of any required fire protection and response measures in the declared area - integration of site-specific requirements into NPWS and NSW Government bushfire planning, risk management and operational response arrangements. • Implement fire management consistent with the guidance.
Feral predators	AIS-E0-219	<ul style="list-style-type: none"> • Maintain the density of feral predators (e.g. foxes, feral cats and wild dogs) inside the feral predator-free area at zero by responding to any incursions with trapping, baiting, shooting and other approved measures. • Implement trapping, baiting, shooting and other approved measures in a buffer area outside the conservation fences to reduce the risk of feral predator incursion. • Develop a feral predator incursion plan within 6 months of adoption of this plan, and in the event of an incursion implement feral predator control response. • Undertake regular assessments of conservation fences, and if required repair these fences, to ensure a reduced risk of feral predator incursions.
Feral pigs	AIS-E0-219	<ul style="list-style-type: none"> • Maintain the density of feral pigs inside the feral predator-free area at zero, by responding to any incursions, with trapping, baiting, shooting or other approved measures.
Feral herbivores	AIS-E0-219	<ul style="list-style-type: none"> • Maintain the density of large feral herbivores (e.g. goats) inside the feral predator-free area at zero, by responding to any incursions, with trapping, shooting or other approved measures such as mustering and removal. • To the extent practicable reduce the density of rabbits to zero, or to levels that are not having an ecologically significant impact on the Shark Bay bandicoot and maintain the densities at or below those levels by trapping, baiting, shooting or other approved measures.
Disturbance	AIS-E0-219	<ul style="list-style-type: none"> • Undertake periodic reviews to identify whether authorised maintenance activities, unauthorised activities, fires, floods and/or vandalism are having an adverse impact on the conservation fences and associated infrastructure. If adverse impacts are observed implement actions to mitigate the impacts. This may include: <ul style="list-style-type: none"> - installation of signs, threatened species marker posts or barriers to delineate sites and minimise impacts - compliance activities. • If required, develop and implement guidance for staff, utility managers, and/or contractors, about appropriate maintenance practices that minimise or prevent impacts to the Shark Bay bandicoot and its habitat.

Key risks	Impacted site	Conservation activities
Inbreeding depression and loss of genetic diversity	AIS-E0-219	<p>In this context, each feral predator-free area is regarded as hosting a Shark Bay bandicoot sub-population (deme).</p> <ul style="list-style-type: none"> • Conduct genetic analysis of the Shark Bay bandicoot sub-population at appropriate intervals, to support conservation and recovery of the species at the site and across all sub-populations. • As required, maintain and improve the genetic diversity of Shark Bay bandicoot sub-populations through the translocation of suitable individuals.
Unsustainable population levels	AIS-E0-219	<ul style="list-style-type: none"> • Undertake periodic reviews to identify whether the Shark Bay bandicoot population is exceeding sustainable levels. • If required, and as approved by the Secretary or delegate, implement measures to reduce or limit the Shark Bay bandicoot population and/or restore ecosystem function including trophic structure within the feral predator-free area. This may include: <ul style="list-style-type: none"> - translocation of individuals to other locations - reintroduction of native predators.

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 Shark Bay bandicoot at the site	Population estimate	<p>Design and implement monitoring, annually for 3 years from approval date on this CAP (initial monitoring period), to generate an estimate of the number of individuals at the site.</p> <p>After the initial monitoring period, and subject to the approval of the Secretary or delegate, undertake monitoring every 2 years.</p>

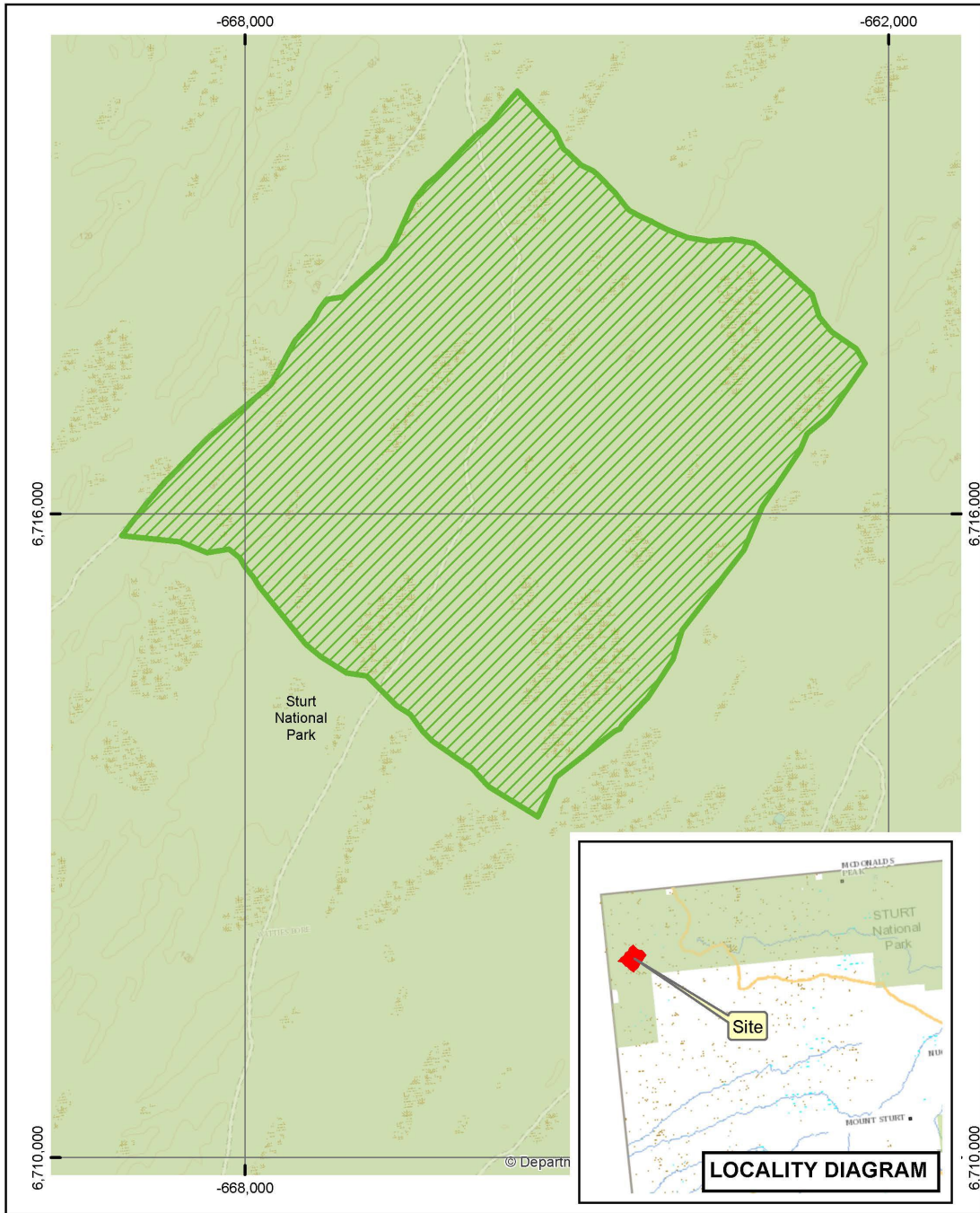
A report on the health and condition of the value for which this AIS was declared will be prepared and published on the Department of Climate Change, Energy, the Environment and Water website: www.environment.nsw.gov.au. The report will summarise the baseline and current health and condition of the values 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)).

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Legend

-  Declared Land
-  NPWS Estate

AIS-E0-219
Asset of
Intergenerational Significance
Feral predator-free fenced area
partnership project
Sturt National Park

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Date prepared March 2024

Date approved

Approved by

Due for review

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