

# Conservation Action Plan

## Dwarf mountain pine (*Pherosphaera fitzgeraldii*)

This plan has been prepared in accordance with the requirements of s.78(c) 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-E0-054, AIS-E0-055, AIS-E0-056, AIS-E0-057, AIS-E0-058, AIS-E0-059, AIS-E0-060
Site location	An area of 277 hectares in Blue Mountains National Park An area of 120 hectares in Ngula Bulgarabang Regional Park
NPWS contact	Team Leader Conservation, 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 dwarf mountain pine	Dwarf mountain pine is an erect shrub with drooping branches that grows to one metre tall. It is an endangered plant found within the spray zone or associated drip lines and seepage areas of waterfalls on steep, sandstone cliffs and ledges. The habitat on national park estate supports the most important population for this species.

## 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 that kills adult plants and limits germination and recruitment may lead to a decline or extinction of dwarf mountain pine population at the sites.
Weeds	Habitat degradation and competition through invasion, establishment, intensification and spread of weeds to the extent that recruitment or establishment of plants is impaired.
Alteration to hydrological regimes	Changes to natural flow regimes and groundwater levels can affect water availability, increase the risk of erosion and sedimentation and lead to disturbance of dwarf mountain pine habitat.
Anthropogenic climate change	Changes to weather patterns and climatic conditions as a result of anthropogenic climate change that increases frequency and severity of drought conditions and fire may exceed the adaptive capacity and reduce survivorship of the dwarf mountain pine at the sites. This risk is exacerbated by the restricted distribution and very small population size of the dwarf mountain pine.
Disturbance	Authorised infrastructure maintenance (e.g., trail maintenance) and visitor use that leads to degradation of habitat and damage to individuals by stream erosion and sedimentation.

## Conservation activities

This table sets out the conservation activities required to:

- control, abate or mitigate the key risks and
- 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 dwarf mountain pine 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>
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 dwarf mountain pine, by targeted application of physical, biological and/or chemical weed control.</li> </ul>

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Key risk(s)	Impacted site(s)	Conservation activities
Alteration to hydrological regimes	All sites	<ul style="list-style-type: none"> <li>To the extent practicable, manage changes to ground and surface water flows to minimise impacts to dwarf mountain pine habitat.</li> </ul>
Disturbance	All sites	<ul style="list-style-type: none"> <li>Undertake periodic reviews to identify whether infrastructure maintenance and visitor use is having an adverse impact on dwarf mountain pine. If adverse impacts are observed implement actions to mitigate the impacts. This may include: <ul style="list-style-type: none"> <li>- relocation of mitre drains, or redirecting run-off to avoid known plants</li> <li>- upgrade / realignment of trails to avoid known plants and habitat</li> <li>- installation of signs or threatened species marker posts to delineate sites to minimise impacts from infrastructure maintenance</li> <li>- installation of barriers and other suitable protective structures around plants to minimise impacts from authorised and unauthorised visitor use.</li> </ul> </li> </ul>
All risks	All sites	<ul style="list-style-type: none"> <li>Establish ex-situ living collection and/or seedbank from a genetically representative sample of the population in partnership with an appropriate facility.</li> <li>If required, augment the existing population at the site and/or establish a new 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 dwarf mountain pine population	Population count	Design, and implement, every 3 years, monitoring to generate an estimate of the number of individuals in the population.
	Reproductive success / recruitment	Design, and implement, every 6 years, monitoring designed to generate an estimate of dwarf mountain pine recruitment at the sites.

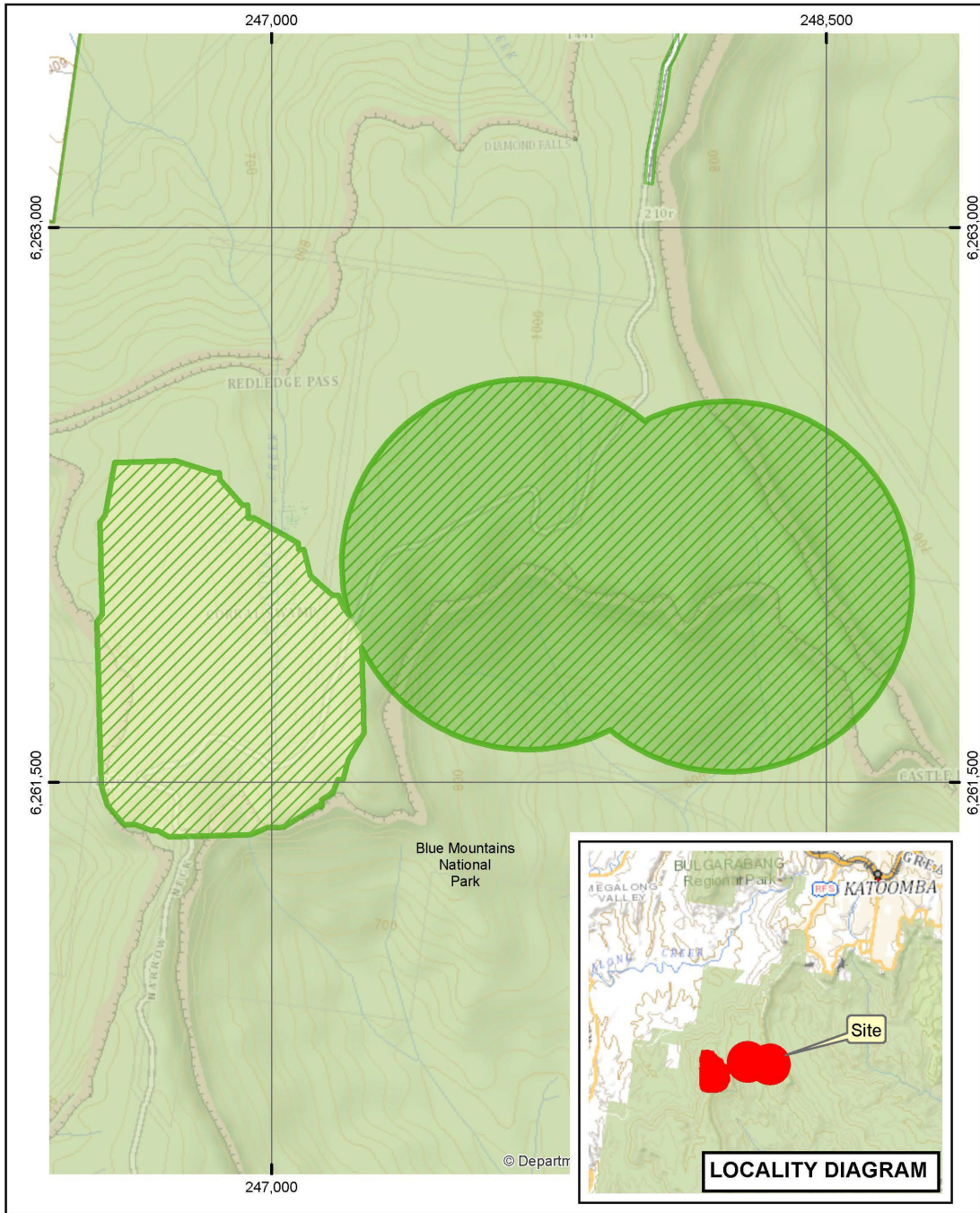
A report on the health and condition of the value for which this AIS was declared will be prepared and published on the Department of Planning and Environment website: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au). The report will summarise the baseline and current health and condition 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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Legend	
	Declared Land
	Coveny's zieria ( <i>Zieria covenyi</i> )
	Dwarf mountain pine ( <i>Pherosphaera fitzgeraldii</i> )
	NPWS Estate

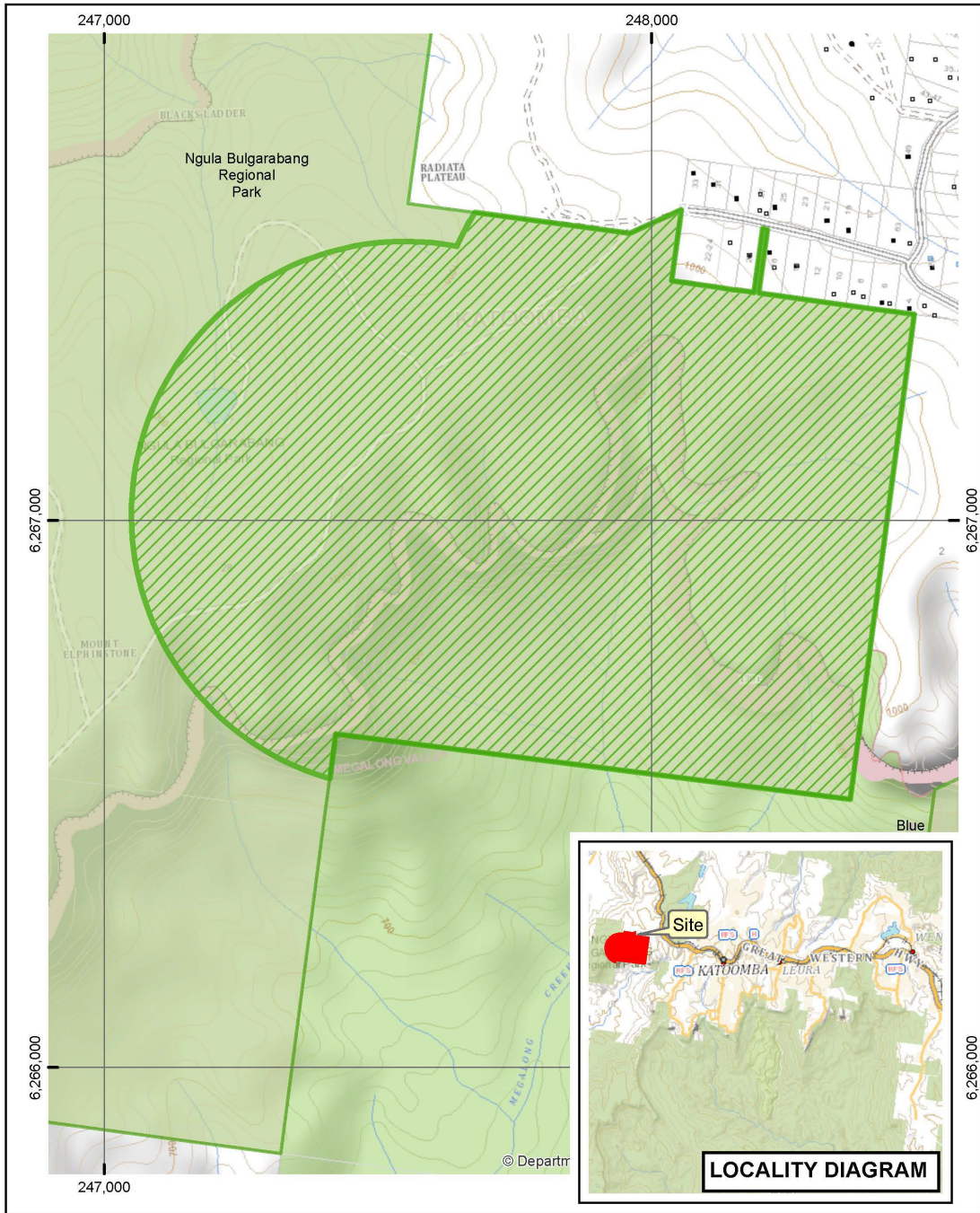
**AIS-E0-054**  
**Asset of Intergenerational Significance**  
**Coveny's zieria (*Zieria covenyi*) and**  
**Dwarf mountain pine**  
**(*Pherosphaera fitzgeraldii*)**  
**Blue Mountains National Park**

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Dwarf mountain pine (*Pherosphaera fitzgeraldii*):  
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**Legend**

-  Declared Land
-  NPWS Estate

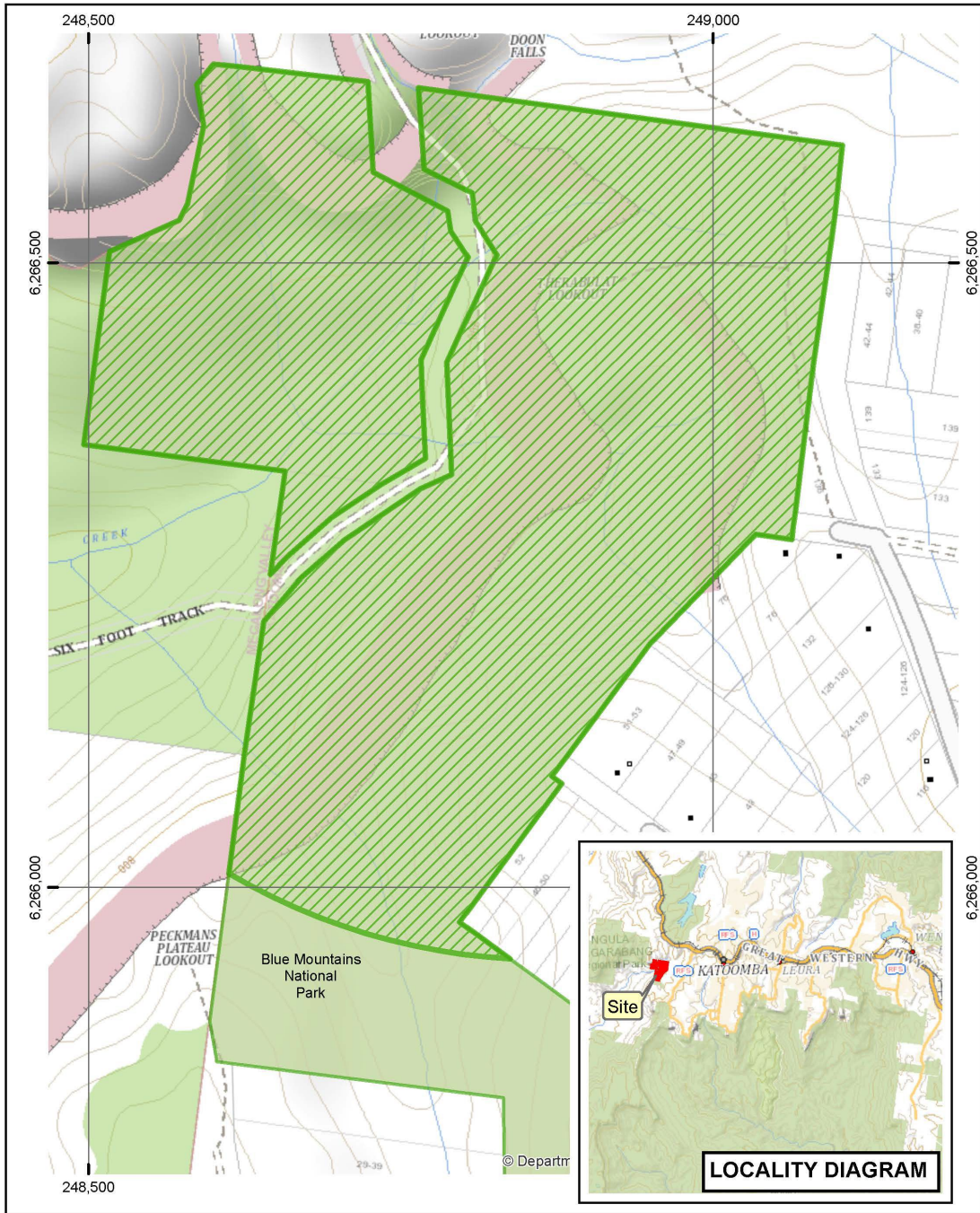
**AIS-E0-055**  
**Asset of**  
**Intergenerational Significance**  
**Dwarf mountain pine**  
*(Pherosphaera fitzgeraldii)*  
**Ngula Bulgarabang Regional Park**

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**Legend**

-  Declared Land
-  NPWS Estate

**AIS-E0-056**  
**Asset of**  
**Intergenerational Significance**  
**Dwarf mountain pine**  
*(Pherosphaera fitzgeraldii)*  
**Blue Mountains National Park**

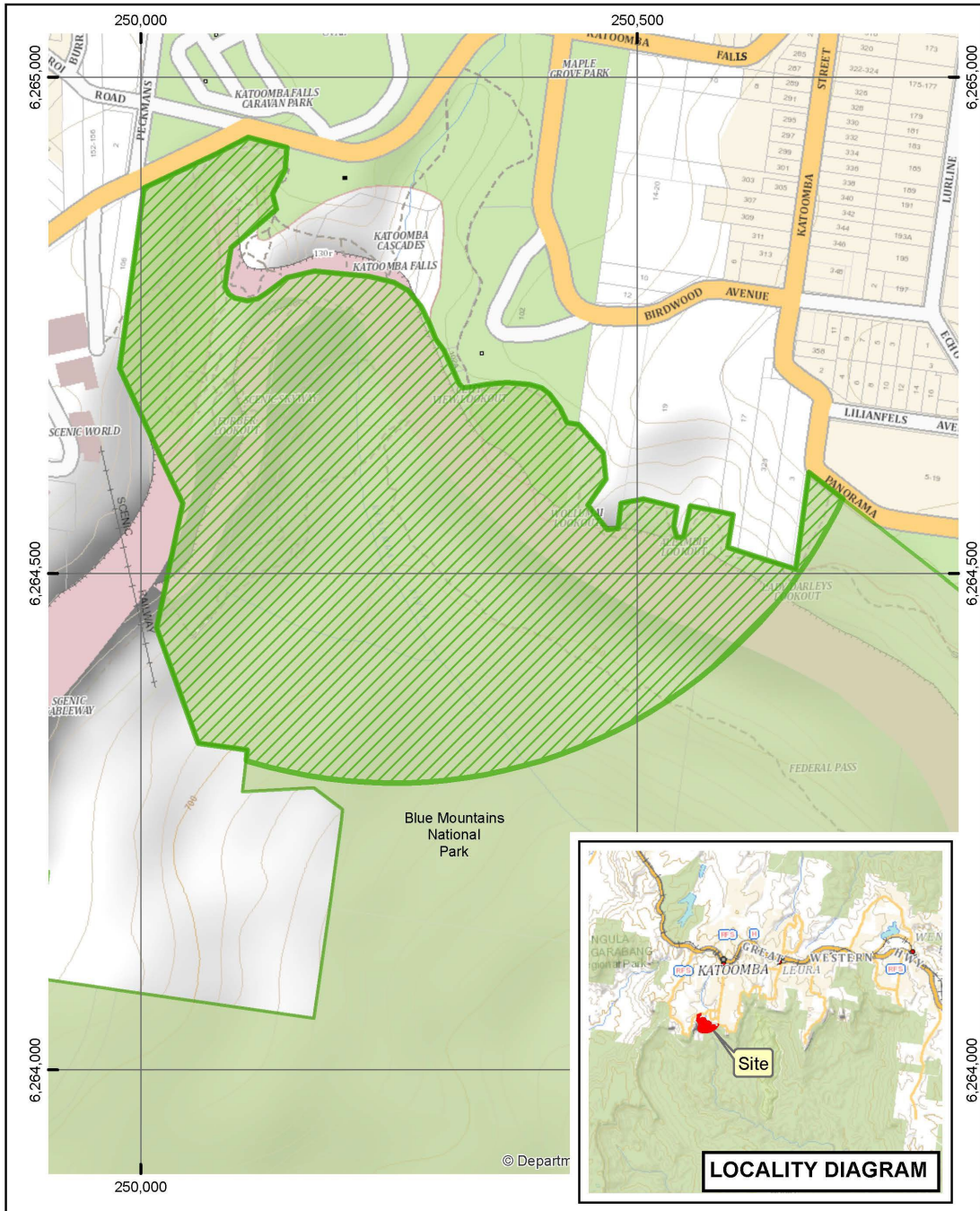
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Dwarf mountain pine (*Ptherosphaera fitzgeraldii*):  
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**Legend**

-  Declared Land
-  NPWS Estate

**AIS-E0-057**  
**Asset of**  
**Intergenerational Significance**  
**Dwarf mountain pine**  
*(Ptherosphaera fitzgeraldii)*  
**Blue Mountains National Park**

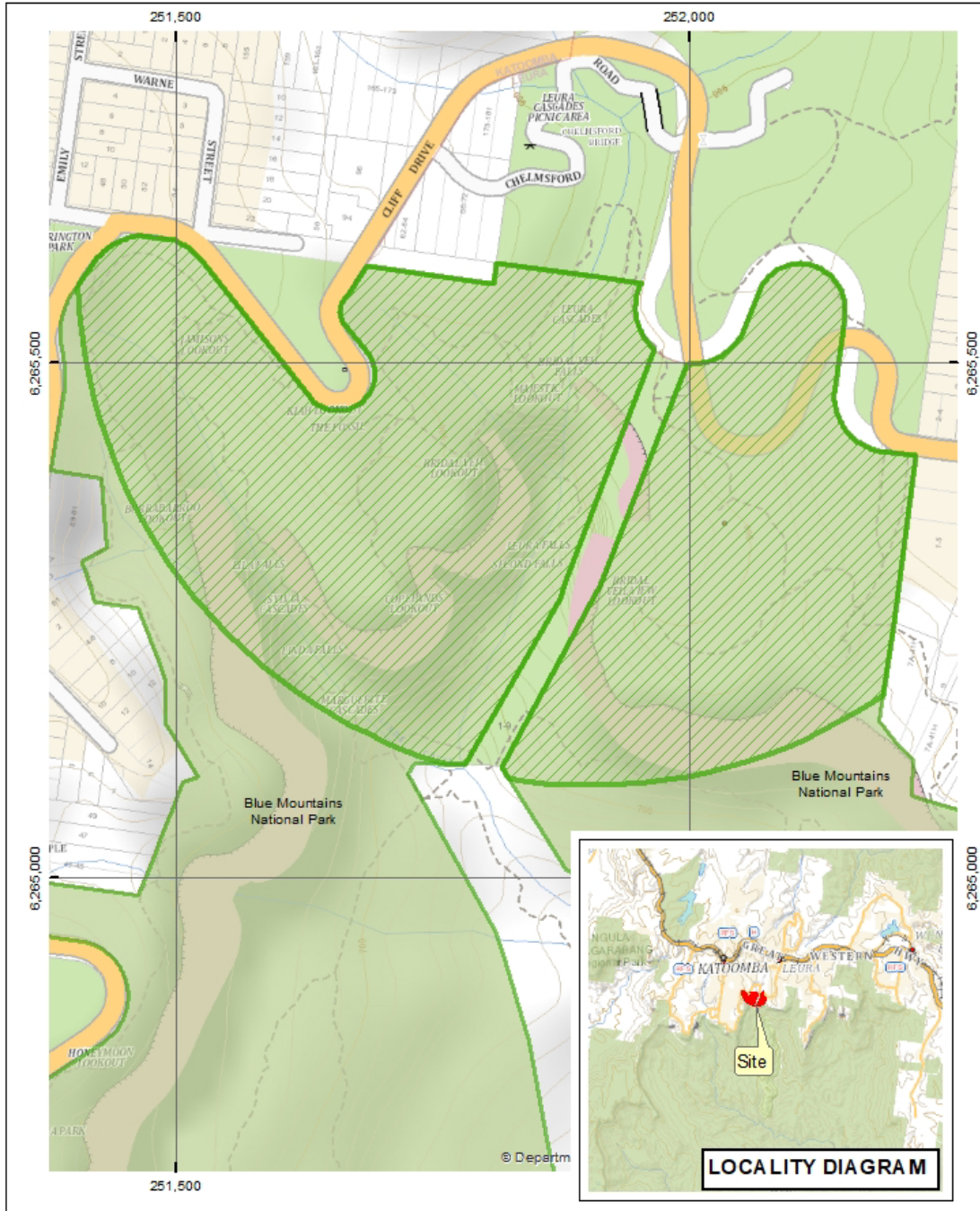
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**Legend**

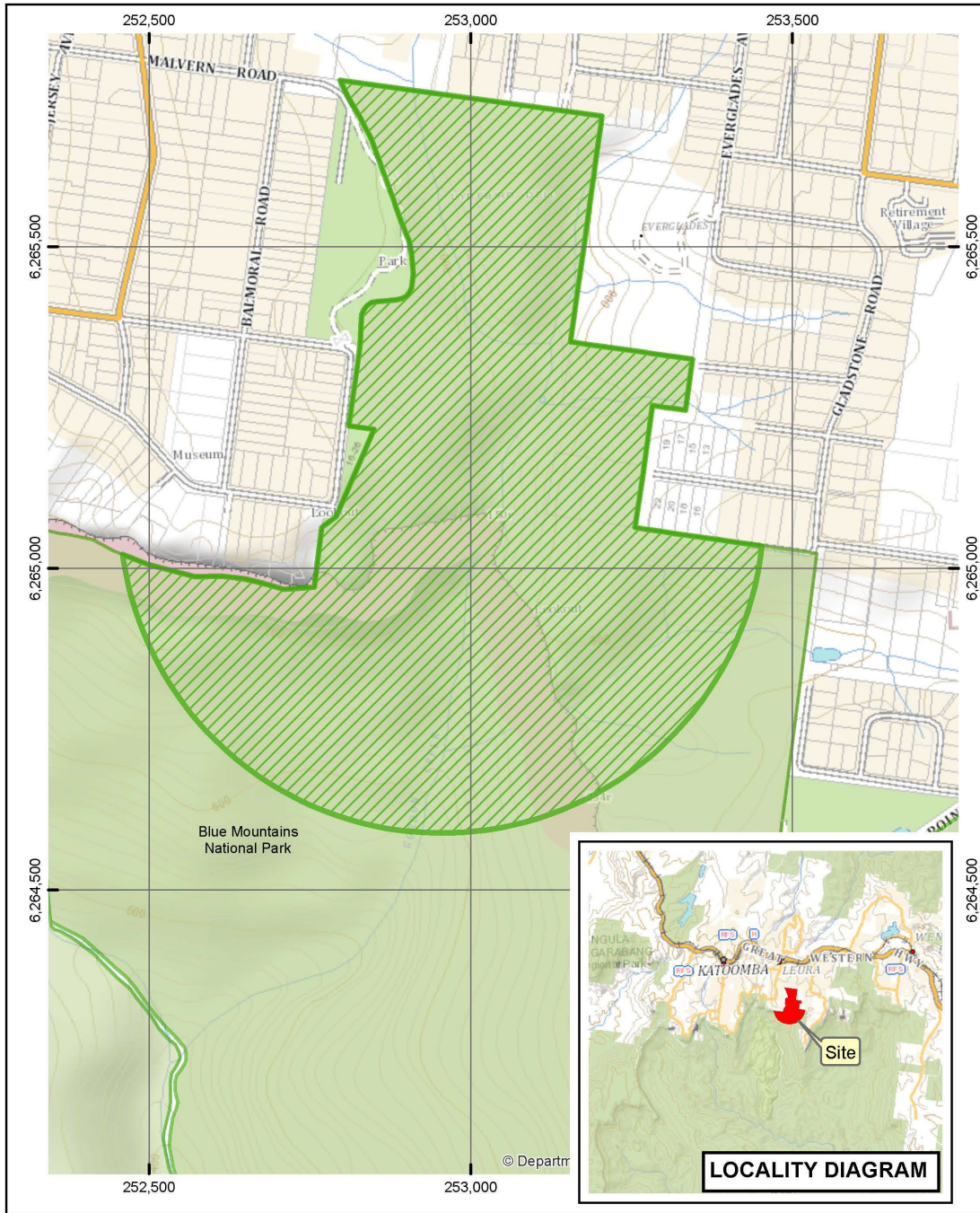
- Declared Land
- NPWS Estate

**AIS-E0-058**  
Asset of  
Intergenerational Significance  
Dwarf mountain pine  
(*Pherosphaera fitzgeraldii*)  
Blue Mountains National Park



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N 0 0.05 0.1 0.15 km

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**Legend**

-  Declared Land
-  NPWS Estate

**AIS-E0-059**  
**Asset of**  
**Intergenerational Significance**  
**Dwarf mountain pine**  
*(Ptherosphaera fitzgeraldii)*  
**Blue Mountains National Park**

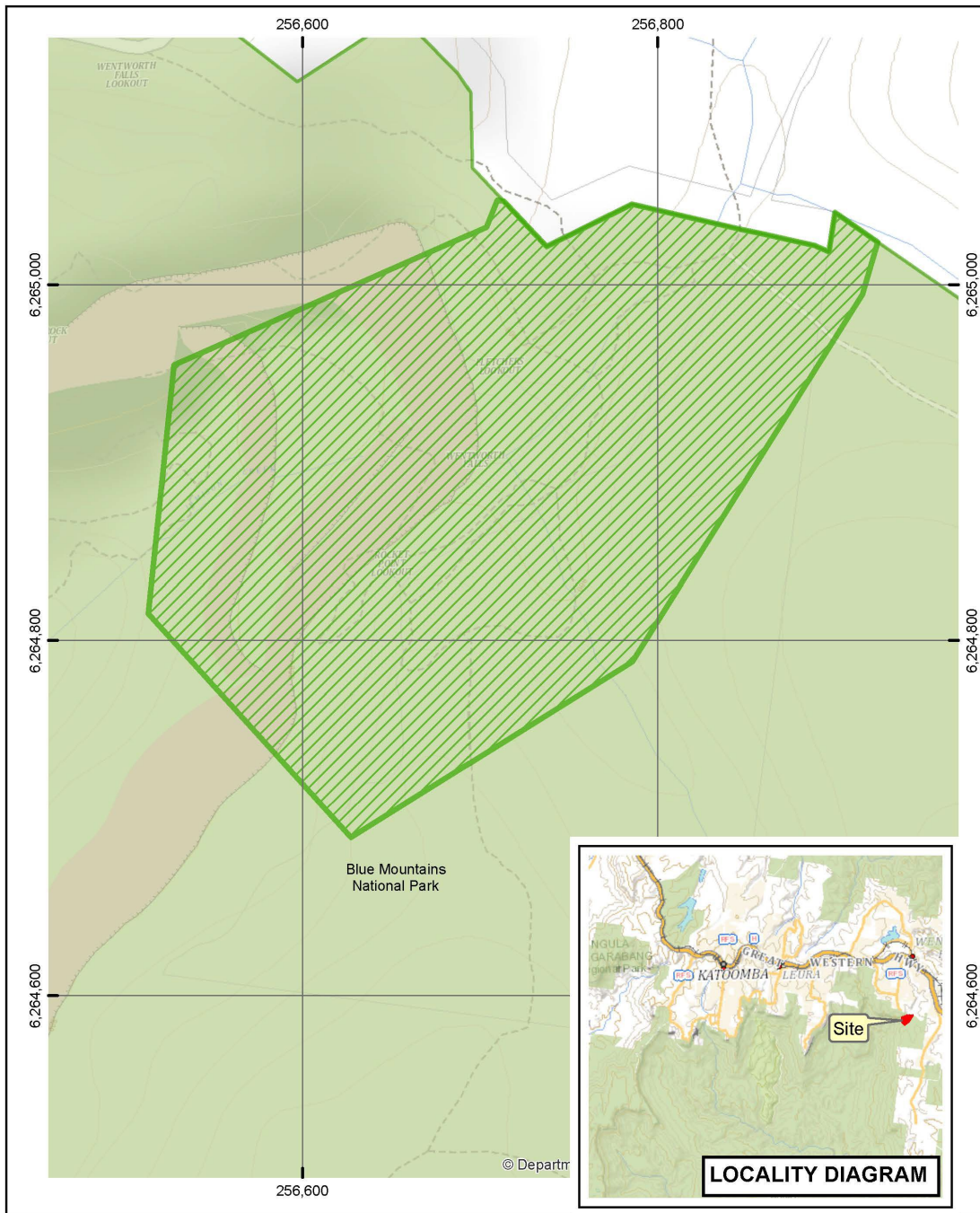
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 0 0.085 0.17 0.255 km








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**Legend**

-  Declared Land
-  NPWS Estate

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

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