

## Cleland Hills and surrounds

### Location and Description

The Cleland Hills are located west of the greater MacDonnell Ranges and 320 km west of Alice Springs. They are a low, western outlier of the George Gill Range and are surrounded by sandplains and dunefields in the predominantly flat landscape of the Great Sandy Desert. The Hills are mostly composed of the highly porous Mereenie sandstone and hold water that supports plant species with restricted ranges. The hills support open-woodland with an understorey of spinifex grassland.

### Tenure and Land Use

The Cleland Hills and surrounding areas are entirely Aboriginal freehold land held by the Haasts Bluff Aboriginal Land Trust. The main land use within the Site is Indigenous.

### Significance Rating

National Significance

### Ecological Values

A total of four threatened species are recorded from this Site including two birds (Emu and Princess Parrot) and two mammal species (Black-footed Rock Wallaby and Long-tailed Dunnart). Half of the Northern Territory records of Long-tailed Dunnart are from within this Site, and a number of Northern Territory endemic and restricted range plant species also occur in the Site.

### Management Issues

Buffel grass is present in the Site and summer wildfires are a potential management issue. The Site is poorly surveyed and little information is available on the factors affecting its conservation values.

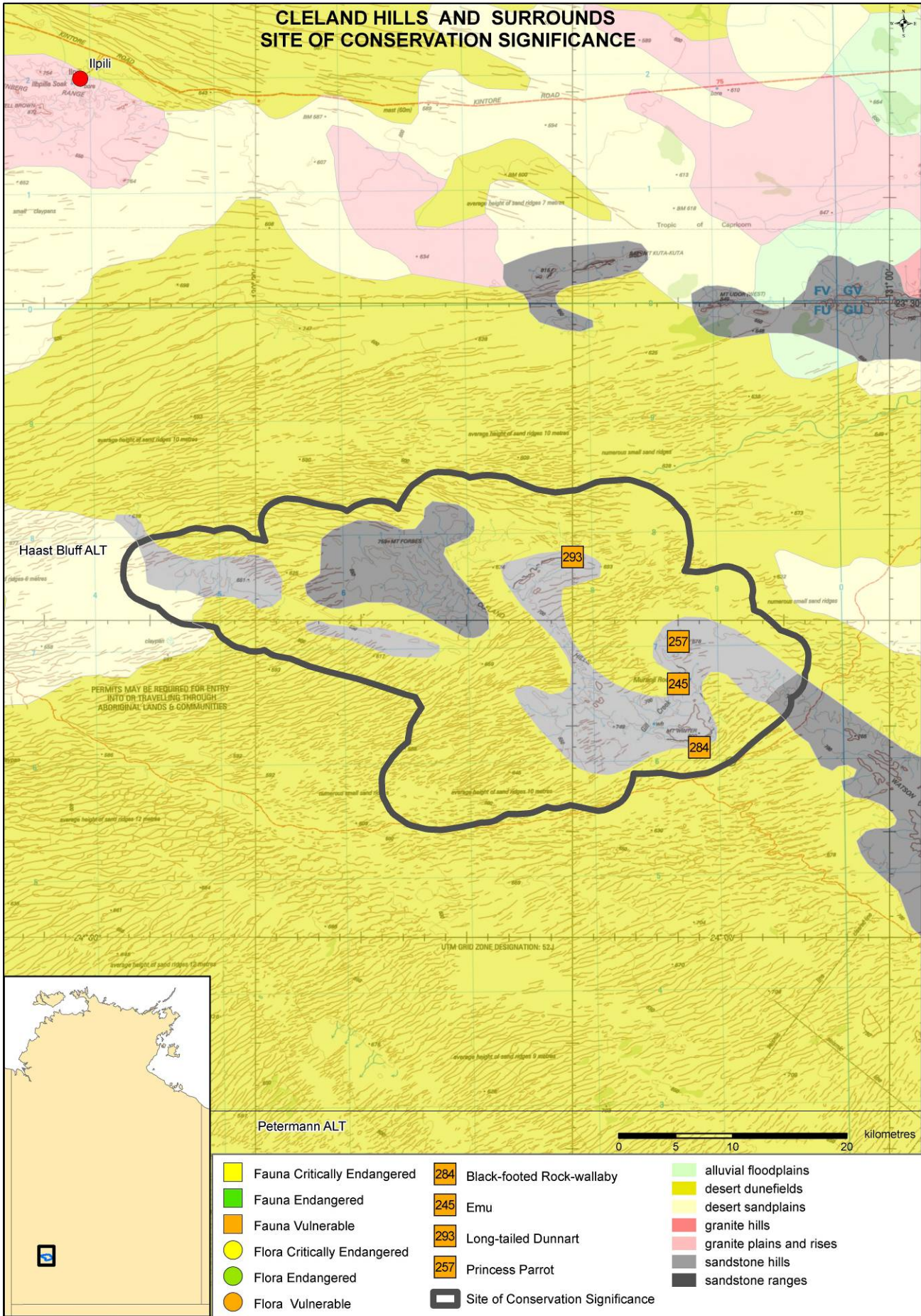
### Condition

No information located.

### Current Conservation Initiatives

Conservation Volunteers Australia, Green Corps, and the Haasts Bluff community undertook weed control (particularly of Mossman River Grass), fencing and mammal trapping near Muranji Rockhole in 2003-4.





CLELAND HILLS AND SURROUNDS - SITE OF CONSERVATION SIGNIFICANCE

<b>LOCATION</b>	<b>SOCS Number</b>	57 (NT Parks and Conservation Masterplan Map Number 90)
	<b>Latitude/Longitude</b>	23° 46' South, 130° 42' East (at centre)
	<b>Bioregion</b>	Great Sandy Desert
	<b>Description</b>	<p>The site is based on the Cleland Hills, but also includes Murunji Rockhole in the east of the site, and adjacent areas of dunefields and sandplains. The two highest peaks in the site include Mount Winter and Mount Forbes.</p> <p>The boundary of the site follows the Site of Botanical Significance boundary as defined by White <i>et al.</i> (2000), with an additional 2 km buffer around the area. The site has an area of 1027 km<sup>2</sup>.</p> <p>The Cleland Hills are dominated by Spinifex hummock grasslands (<i>Triodia pungens</i>, <i>T. longiceps</i> and <i>T. schinzii</i>) with holly grevillea <i>Grevillea wickhamii</i> and acacias in the sparse shrub layer (White <i>et al.</i> 2000). The Greater MacDonnell Ranges, about 100 km east of the Cleland Hills, and the George Gill Range, about 100 km south-east, are also identified as sites of high conservation significance in the NT.</p>
<b>THREATENED SPECIES</b>	<b>Significance Rating</b>	<b>National Significance</b>
	<b>Threatened plants and animals</b> (Listings at National/NT level <b>CR</b> - Critically Endangered, <b>EN</b> - Endangered, <b>VU</b> - Vulnerable, <b>NT</b> - Near Threatened, <b>LC</b> - Least Concern, <b>DD</b> - Data Deficient)	<p>Four threatened species are recorded from this site.</p> <p><b>Vertebrates</b></p> <ul style="list-style-type: none"> <li>▪ Emu <i>Dromaius novaehollandiae</i> (-/VU)</li> <li>▪ Princess Parrot <i>Polytelis alexandrae</i> (VU/VU)</li> <li>▪ Black-footed Rock Wallaby <i>Petrogale lateralis</i> (VU/NT)</li> <li>▪ Long-tailed Dunnart <i>Sminthopsis longicaudata</i> (-/VU)</li> </ul> <p>This site encompasses 50% of the NT records of Long-tailed Dunnart.</p>
<b>ENDEMIC SPECIES</b>	<b>Significance Rating</b>	<b>Not Significant</b>
	<b>Notes</b>	<p><b>Endemic to the NT:</b> Two plant species reported for the site are endemic to the NT (<i>Austrobryonia centralis</i>, <i>Goodenia larapinta</i>).</p> <p><b>Other:</b> Two plants recorded within the site are found only in the Great Sandy Desert bioregion within the NT but are also found in other states (<i>Laxmannia arida</i> and <i>Sauropus arenosus</i>).</p>
<b>WILDLIFE AGGREGATIONS</b>	<b>Significance Rating</b>	<b>Not Significant</b>
	<b>Marine turtles</b>	Not applicable
	<b>Seabirds</b>	None known
	<b>Waterbirds</b>	None known
	<b>Shorebirds</b>	None known
	<b>Other aggregations</b>	None known
<b>WETLANDS</b>	<b>Significance Rating</b>	<b>Not Significant</b>
	<b>Ramsar criteria met</b>	Not applicable
	<b>DIWA criteria met</b>	Not applicable
	<b>Notes</b>	This site does not include extensive wetland areas. Murunji Rockhole, in the east of the site, is a long-lasting and well shaded rockhole, but is not permanent (Duguid 2005).
	<b>Rivers</b>	None known
<b>FLORA</b>	<b>Significance Rating</b>	<b>Not Significant</b>
	<b>Notes</b>	<p><b>Restricted range species:</b> Two plant species recorded from the site have restricted ranges within the NT (<i>Lamarchea sulcata</i> and <i>Rulingia luteiflora</i>).</p> <p><b>Relictual species:</b> <i>Poranthera triandra</i> is a relictual plant species recorded from this site.</p>

CLELAND HILLS AND SURROUNDS - SITE OF CONSERVATION SIGNIFICANCE

OTHER ENVIRONMENTAL VALUES		<p>The Cleland Hills are listed on the Register of the National Estate for their natural values (Australian Heritage Council).</p> <p>The Cleland Hills are identified as a Site of Botanical Significance in White <i>et al.</i> (2000).</p> <p>Five frog species are reported from this site (NT Fauna Atlas, NRETAS).</p>
MANAGEMENT ISSUES		<p><b>Fire:</b> No parts of the site were burnt more than twice in the period 1997-2005, but large-scale fires can occur. The changed fire regime threatens the conservation values of the site (NRETA 2005).</p> <p><b>Feral animals:</b> No information located</p> <p><b>Weeds and invasive exotic plants:</b> Mossman River grass <i>Cenchrus echinatus</i> (category B weed) and buffel grass <i>Cenchrus ciliaris</i> are recorded from this site.</p> <p><b>Other:</b> The extent and nature of all factors affecting the conservation values at the site cannot be defined because there has been insufficient biological survey in the area.</p>
MANAGEMENT INFORMATION	<b>NRM groups</b>	Haasts Bluff Aboriginal Land Trust.
	<b>Protected areas</b>	The site is not within the formal network of protected areas within the NT.
	<b>Current management plans</b>	<p><b>Site-specific plans:</b> No information located.</p> <p><b>National recovery plans for threatened species:</b> Black-footed Rock Wallaby (WA Department of Environment and Conservation in prep.).</p> <p><b>Other management plans:</b> Australian Weeds Strategy (NRMMC 2007)  <a href="http://www.weeds.gov.au/publications/strategies/weed-strategy.html">http://www.weeds.gov.au/publications/strategies/weed-strategy.html</a></p>
	<b>Monitoring programs and research projects</b>	<p>Haasts Bluff Aboriginal Land Trust surveys (NRETA 2005).</p> <p>On-ground management work near Muranji Rockhole was done in 2003-4 by Conservation Volunteers Australia and Green Corps in collaboration with the Haast Bluff Community. This included some weed control work (particularly <i>Cenchrus echinatus</i>), fencing and mammal trapping.</p> <p>Across the NT, fire is mapped continuously under the North Australia Fire Information Project  <a href="http://www.firenorth.org.au/nafi/app/init.jsp">http://www.firenorth.org.au/nafi/app/init.jsp</a></p>
	<b>Management recommendations</b>	Support further development of the Haasts Bluff ALT land management activities (NRETA 2005).
KEY REFERENCES	<b>Papers and reports</b>	White, M., Albrecht, D., Duguid, A., Latz, P. and Hamilton, M. (2000). <i>Plant species and sites of botanical significance in the southern bioregions of the Northern Territory; volume 2: significant sites</i> . A report to the Australian Heritage Commission from the Arid Lands Environment Centre. Alice Springs, Northern Territory of Australia.
	<b>Contributors</b>	Chris Pavey, Biodiversity Conservation, NRETAS, Alice Springs