

# Mining will degrade Arkaroola Wilderness Sanctuary, in the northern Flinders Ranges

by Dennis Walter

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In the aftermath of the climate change conference in Copenhagen, another environmental stoush is taking place on our very doorstep.

Mineral explorer Marathon Resources wants to mine a small uranium deposit in the northern Flinders Ranges. The deposit lies beneath some of the state's most spectacular Outback arid mountain scenery.

The proposed mine is in the rugged and starkly beautiful heartland of the privately managed Arkaroola Wilderness Sanctuary. The issues are simple. Mining will degrade wilderness values. Should Arkaroola's wilderness be preserved for its ecological, environmental, scientific and tourism values? Is there greater community advantage to be gained by excavating the uranium, perhaps generating other benefits and new mining royalty payments to the state? The choice is not one for either party directly involved. Government will decide.

Uranium was discovered near Mt Painter in 1910. Then it had value only as a host for the rare, highly radioactive element radium. Samples collected by W.B. Greenwood, a local pioneer, pastoralist and prospector, were identified by Douglas Mawson (later Sir Douglas), at Adelaide University. The mining venture they formed persisted on a small scale into the 1920s.

The search for uranium surged during World War II, as a joint British-American Atomic Agency sought supplies for the project that developed the first atom bomb. Again though, interest in uranium prospectivity in the northern Flinders waned. More easily-accessed ore existed at Radium Hill, just off the Broken Hill highway.

Growing demand for uranium as a new energy source led to another burst of exploration in the late 1960s. That search was abandoned after several years. Exoil moved on to discover an ore-body on the plains to the east, now being mined as the Beverley Deposit.

Other exploration companies followed Exoil into the ranges. One by one they fell by the wayside without finding sufficient uranium to mine economically.

Then, around 2004, Marathon Resources entered the scene. It reported the discovery at Mt Gee of an ore-body with 31,400 tonnes of uranium oxide, close to Greenwood's initial find. The company considers this will support nine years of profitable mining and yield the state about \$150 million in royalties.

The other side of the mining/conservation equation is the protection of the inherent values of the Arkaroola Wilderness Sanctuary. The Sanctuary surrounds the uranium-bearing ore-body. Arkaroola has exceptional scenic values. Its dramatic beauty stems from the exposure of ancient granitic rocks and former hot springs, not found elsewhere in the Flinders and uncommon in South Australia.

Within Arkaroola are fragile ecological niches unique in the Flinders, home to plants and animals not seen elsewhere. Much is still only poorly explored. Many new species await discovery.

Following the initial discovery of uranium, geologist Mawson continued exploration of the area and for decades led field studies by his university students there.

In 1939 he expressed the hope that the Arkaroola region would at some future time be recognised as "one great natural museum", one that was "protected into posterity from over-development, vermin and vandalism".



Reg Sprigg was one of Mawson's students and went on to undertake important geological mapping in the Mt Painter province. He was deeply involved in the Government's uranium exploration in the 1940s. He also guided a party led by then premier Playford on a tour of the area and encouraged him (unsuccessfully) to protect Arkaroola as a national park.

*CONSEQUENCES: An aerial view of the Olympic Dam uranium and copper mine, above, and the spectacular arid ranges of the Arkaroola Wilderness sanctuary, right.*



Arkaroola was unsustainable as a sheep station. It came close to being abandoned in the late 1960s. Sprigg committed to personally bringing Mawson's vision into being.

Purchasing the lease in January 1968, he began the task of conservation. He funded this by a tourist development on the property's southern fringe. This pastoral lease has now become the Arkaroola Wilderness Sanctuary, still managed by the Sprigg family.

Now, 40 years on, the State Government seeks to arbitrate a compromise or balance between the competing and conflicting interests of mining and conservation. Their offered solution was published in late October in the booklet *Seeking a Balance: Conservation and Resource Use in the Northern Flinders Ranges*. Public comment was invited and required by 19 December [**Since extended until 29 January 2010**]. The Government proposed to refine part of the current Flinders Ranges Development Plan Environment Class A Zone, created under the State's Development Act of 1993.

This would create four new land management categories ranging from Zone 1, in which no access will be permitted for mineral exploration or development, to Zone 4, where standard access for exploration and mining will be permitted. An 8km wide swath of a largely standard access zone is suggested, cutting across the Arkaroola Wilderness Sanctuary from east to west, carving it in two.

Within this swathe are isolated small areas, particularly surrounding spectacular geological and scenic features, of zones offering limited protection. These features, with their accepted community values, are already detailed in the Government's Australian Heritage Places Inventory. Also in this

swathe lies the Mt Gee uranium ore-body. Here, underground mining would be permitted, subject to surface access being only from an adjacent zone of lesser status.

The highly convoluted assortment of different management access zones would be impossible to manage or enforce. Just across Arkaroola's southern boundary lies a national park. Throughout this entire area there is a total prohibition of exploration and mining. Contrast this with the patchy cluster of isolated small protected areas suggested for Arkaroola. What is there about a rusting wire boundary fence that differentiates community values on either side?

The current proposal has the appearance of encouraging mining at the cost of seriously degrading Arkaroola's near-pristine environment. There is no "balance" that will permit both initiatives to thrive.

Protecting the Arkaroola Wilderness Sanctuary from mining is the path sought by Mawson and Sprigg. Sprigg envisaged his Arkaroola Wildlife Sanctuary as "a realistic experiment of strictly controlled tourism in harmony with ecological and environmental conservation". The many thousands of tourists who have enjoyed Arkaroola will agree that he achieved his goal.

So too will the many researchers, ranging from school students to the doyens of their professions, whose studies have been aided by their access to the Sanctuary. It has proved of significant benefit to South Australia, in attracting large numbers of visitors to the State. It is widely promoted both commercially and by Tourism SA. Along the way, it has collected South Australian awards for sustainable and eco-tourism, including admission to the prestigious Tourism Hall of Fame.

Without mining, the Arkaroola Wilderness Sanctuary will continue indefinitely, with undiminished capacity to provide benefits to the community. Mining the known uranium deposit presents a different story. The Mt Gee ore-body with its estimated 31,400 tonnes of uranium oxide comprises just 2.5 per cent of the known and inferred South Australian resources of this element. The deposit lies in difficult country, expensive to mine. Nearly all the remaining 97.5 per cent of South Australia's uranium is in deposits in far less sensitive environments on plains country.

Australia has 40 per cent of the world's known uranium resources. Total South Australian sales of uranium are unlikely to vary significantly whether or not Mt Gee's 2.5 per cent is extracted and marketed. Uranium royalties received by the State Government are unlikely to vary one way or the other. Other economic benefits from mining at Mt Gee would be only short-term. Marathon now forecasts a mine life of only nine years. Assuming profitable mining, and reasonable distribution of those profits, the principle financial beneficiaries may well be only the company's shareholders.

No matter how great the will, and intentions otherwise, mining in this fragile, arid mountain environment will result in significant ecological and environmental damage.

The proposed mining would be brief, but destruction of the environment permanent. Mountains and the natural environment are forever, if the community respects and protects their values.

Mining in rare and precious environments like Arkaroola should be permitted only when there are unarguable and significant benefits for society.

That is not the case here.

The Government has a clear choice.