

# **COMMENTS ON “SEEKING A BALANCE”**

**A SUBMISSION CONCERNING MINING IN THE NORTHERN FLINDERS RANGES**

**by**

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**to**

**Primary Industries and Resources South Australia  
and  
the Department for Environment and Heritage**

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## SUMMARY

This submission urges the South Australian Government to use its powers to protect the Northern Flinders Ranges, and the Arkaroola Wilderness Sanctuary in particular, from mineral exploration and eventual mining activities, and makes specific comments and recommendations concerning the document "*Seeking a Balance*".

As is frequently stated throughout that document, the Northern Flinders is an area of great beauty, biodiversity, and environmental and geological significance. Unfortunately it is also the location of a uranium deposit essentially lying under Mount Gee, one of several proclaimed geological features in the area on the Australian Register of the National Estate.

Nevertheless, this submission suggests that any benefit that might be gained by prospecting for and mining uranium is greatly outweighed by the need to preserve a rare and precious area of the State. It takes issue with the very notion that, in this instance, there even is a balance to be had between mining and the environment. It questions some of the methodology used in preparing the document, but asserts that the central issue is about absolute protection of the area.

This submission's first position is therefore that mining should not be permitted in the Northern Flinders Ranges and recommends that:

- 1 the relevant Ministers be advised that the Northern Flinders Ranges, and Arkaroola Wilderness Sanctuary in particular, be given the same protection from mineral exploration and mining as applies to the adjacent Vulkathunha-Gammon Ranges National Park.

Without prejudice to this view, this submission then comments on the content of "*Seeking a Balance*" and makes the following recommendations concerning that content.

It recommends that the relevant Ministers be advised:

- 2 that landscape values should be considered in terms of their existence as an important and representative part of the South Australian landscape, rather than on the basis of the subjective assessment of photographs;
- 3 that the mapping of biodiversity values does not have proper regard for the holistic approach taken in government conservation programs including "*No Species Loss*", "*NatureLinks*" and "*Bounceback*";

- 4 to ensure that proper consultation processes are in place with the Adnyamathanha people concerning their cultural issues in the Northern Flinders Ranges;
- 5 that all data collected should be re-analysed without the assumption that access to mineral resources is a given, including a proper analysis of the financial and intangible benefits of preservation of the environment for educational, scientific and tourism purposes;

and

- 6 that – if indeed any exploration at all is to be permitted –
  - the whole precinct centred on Mount Gee be classified as Access Zone 1;
  - the rest of the Arkaroola Wilderness Sanctuary be classified as at least Access Zone 2a and preferably Access Zone 1; and
  - the rest of the Northern Flinders Ranges be properly assessed and classified appropriately.

## INTRODUCTION

It needs to be said at the outset that this submission is written against a background of incredulity that mining in any part of the Northern Flinders Ranges, and in particular the Arkaroola Wilderness Sanctuary, would even be contemplated. It is difficult to see why exploration activities would be permitted given that mining is presumably intended to be the eventual outcome. That said, *“Seeking a Balance”* appears more to be a justification for the eventual mining of known uranium deposits under Mount Gee than an attempt to set the parameters for exploration and mining in the area generally.

It is also something of a surprise that the Minister for Mineral Resources Development was prepared to restore the exploration licence of a company which had previously displayed a flagrant disregard for its obligations under that licence. Not only that, significant governance issues could possibly arise as a result of certain matters before the courts in relation to an influential major shareholder. Such a background does not augur well for future compliance and *“...community confidence in the industry’s overall performance and a demonstrated commitment by companies to best-practice environmental management...”*. (Proposed Amendments to the *Mining Act 1971*, Background Papers, Primary Industries and Resources SA, 09/07/2009).

Further, it is difficult to reconcile exploration in the Northern Flinders Ranges – and Arkaroola Wilderness Sanctuary in particular – with proper consideration having been given by the Minister to *“the natural beauty of any locality or place that may be affected by the conduct of operations...”* or *“flora and fauna that may be endangered or disturbed...”* (section 30, *Mining Act 1971*). The entire point of the existence of Arkaroola was and is to conserve and protect a fragile and beautiful environment and this is incompatible with exploration and mining on any scale by any company, much less by the company holding the present licence. It is to be noted incidentally, that *“Seeking a Balance”* hardly even mentions the interests of the Aboriginal traditional owners, notwithstanding the requirement under that section of the Mining Act to consider *“any Aboriginal sites or objects within the meaning of the Aboriginal Heritage Act 1988 that may be affected...”*.

This leads to the question of whether further exploration is necessary in any event. Marathon Resources maintains that the Mount Gee prospect is *“...the fifth largest undeveloped uranium resource in Australia...”* and *“...the ultimate resource should be larger than the current estimate of 69,000 lbs of U<sub>3</sub>O<sub>8</sub>...”* (Letter to Shareholders, Marathon Resources, 18 December 2009). Other than Marathon’s profit motive and the Government’s desire for royalties, it is difficult to see why it is necessary to do any further proving of the resource. Uranium is of limited value within Australia given the present stance of the Federal Government both in relation to local use of nuclear energy and to its stance

concerning the export of uranium. Indeed, one might well ask whether a new mine would even be permitted under present federal government policy in relation to uranium mining. It may be a comfort to know of the resource in case these positions change in the future but, at present, mining (presumably the end purpose of exploration) is scarcely necessary in terms of the national interest or the absence of alternative deposits.

Not only this, Marathon itself admits that it will require several megalitres of water per day (the figures seem to vary between sources) to conduct mining operations – this in the driest part of the driest State of the driest inhabited continent! This amount of water is not available within the Ranges so, even if a suitable source were available from elsewhere, extensive damage would be caused to the environment through water carting or the construction of a pipeline. There would also be major problems relating to the safe containment, storage and treatment of contaminated water, with the potential for significant environmental damage to be caused from any unintended run-off.

Much of the Northern Flinders Ranges is already classified as Environmental Class A under the *Development Act 1993*. That protection in effect recognises the environmental significance of the area and it would appear that this is proposed to be diluted by the superimposition of a set of Access Zones which would permit mining activities in some of the most environmentally sensitive areas.

As a matter of interest, the main text of “*Seeking a Balance*” contains a mere 1650-odd words (excluding map keys, disclaimers etc.) – hardly a detailed analysis of the complex and competing interests involved. Also, for some reason it has been issued by the bureaucracy rather than the Minister. It is therefore difficult to know how much, if any, weight is to be given to the document as a representation of the views of the Government. What therefore follows here is an analysis of what can only be seen as a lightweight, superficial and sketchy document, in the hope that sanity will ultimately prevail.

## DISCUSSION

### **Protecting the Values...**

This section refers to “*potential mineral and energy resources of national and international significance*”. It gives no rationale for this statement which, in terms of the national interest or the absence of alternative deposits, is open to challenge. Nor does it give consideration to the economic value of conservation and ecotourism, much less attempt a cost-benefit comparison between mining and conservation, education and ecotourism.

It acknowledges that “[m]uch of the Northern Flinders Ranges lies within the Development Plan’s Environmental Class A Zone”, and that “*the objective of that classification is to seek to conserve the natural character and environment ... and to protect the landscape from damage by mining operations and exploring for new resources*”. That objective will not be met by the proposals in “*Seeking a Balance*”, far from “*further refin[ing] the existing ... framework for ongoing resource activities*” arguably they would actually dilute the protection offered by the Environmental Class A classification by explicitly permitting mining exploration in the area. They would therefore not provide “*greater certainty*”, they would permit exploration and mining activities that would be impossible to police except in retrospect – by which time the inevitable environmental damage would have been done.

Rather, the environmental protection provisions need to be strengthened to prevent mining altogether. That should provide enough certainty for the industry.

RECOMMENDATION 1: That the relevant Ministers be advised that the Northern Flinders Ranges, and Arkaroola Wilderness Sanctuary in particular, be given the same protection from mining as applies to the adjacent Vulkathunha-Gammon Ranges National Park.

**Given the view presented here that mining in the Northern Flinders Ranges should simply be prohibited, what follows in the next sections of this submission is a critique of “*Seeking a Balance*” that should not be taken as condoning any analysis conducive to permitting mining activities.**

### **Building on Existing Knowledge**

This section appears to be little more than a very sketchy description of the “*guiding principles*” and the data sets considered.

Unfortunately, one of the guiding principles relates to “*balanc[ing] ongoing access to mineral resources with protection of the landscapes and the environment.*” It is this very assumption which is under challenge from opponents of mineral exploration, yet there is no attempt in “*Seeking a Balance*” to defend or justify it. Indeed the very title of the paper assumes that there is a balance to be had.

There are no references that would permit the reader to examine the data sets, nor is there any indication of the various methodologies presumably applied to data collection. The reader is asked to trust the scientific and policy officers who “*worked closely together on this study*”. However, given the prime assumption that there is a need to seek a balance between mining and environmental protection, the study cannot have given unbiased consideration to the data collected. This needs to be rectified and a recommendation is made in this regard under *Geoscience and Tourism* later in this submission.

## **The Values of the Northern Flinders Ranges**

### Lack of mapping detail:

Whilst “*Seeking a Balance*” purports to relate to the whole Northern Flinders area, the zoning on the data maps only seems to cover the north-eastern corner of the area delineated on those maps. It is unreasonable in the absence of any evidence to assume that the rest of the Northern Flinders is of little landscape or biodiversity value.

The intrusion into the equation of Marathon Resources and its effect on the Arkaroola Wilderness Sanctuary cannot be overlooked – the more so since Marathon’s activities appear to be what sparked the study in the first place.

The exploration licence area (EL4355) held by Marathon is not shown on any of the maps in the document, nor are there any map co-ordinates that would allow the reader to locate the licence area. Nor, come to that, are the Arkaroola Wilderness Sanctuary or the Development Plan’s Environmental Class A Zone marked, even though the Vulkathunha-Gammon Ranges National Park is shown prominently. In fact, the only maps found indicating the location of EL 4355 in relation to recognisable landmarks come from Marathon itself (Marathon Annual Report Papers, 2009), the Wilderness Society (citation unknown), and the Department of Environment and Heritage (Proposed Management Zones, Northern Flinders Ranges, Science Resource Centre, DEH, 29 October 2009).

### Landscape and associated map:

This section acknowledges that “[t]he Northern Flinders Ranges is an area of diverse landscapes and great scenic beauty.” That is certainly a widely held view, but there is no indication in the document as to how the landscape quality map was derived. Nevertheless, it is known from other sources that the landscape study was conducted by Dr Andrew Lothian (*Lothian A, Scenic Solutions; Flinders Ranges Landscape Assessment, ?2009*).

It is noted from Dr Lothian’s data that about a third of those surveyed did not respond, and nearly half (45.75%) of the total sample stated that they were unfamiliar with the Arkaroola/Mount Painter area. Similarly, 77.9% of the total sample were unfamiliar with the Freeling Heights area. However, regardless of the quality of the study, the fact remains that it was a subjective assessment having little regard for the real value of the landscape in terms of its special features.

The landscape study may have sought to differentiate between the various areas of the Flinders by ascribing subjective values to them, but it is difficult to see that those arbitrary values add to the fact that the whole area is acknowledged as rare and precious. Its “landscape value” is related to its existence as an important and representative part of the South Australian landscape, not to some notion of “quality”

derived from its subjectively perceived attractiveness. Apart from anything else, there has been a protracted drought in the area and much of it is not conventionally “pretty”.

RECOMMENDATION 2: That the relevant Ministers be advised that landscape values should be considered in terms of their existence as an important and representative part of the South Australian landscape, rather than on the basis of the subjective assessment of photographs.

*Biodiversity and associated map:*

The comments on biodiversity in “*Seeking a Balance*” amount to an acknowledgment of the rich diversity of rare flora and fauna species in the Northern Flinders. The biodiversity map shows a patchwork of biodiversity values, but there is no indication in the document as to how these values were derived. One of the principles of biodiversity conservation involves connectivity of habitat and it is difficult to reconcile a patchwork of biodiversity values with any sort of holistic approach to conservation.

The Sprigg family has spent four decades nurturing and protecting the Northern Flinders environment and the Arkaroola Wilderness Sanctuary forms part of a biodiversity corridor reaching from Lake Frome to the western plains. This corridor would be under threat if mining were to be permitted in the Northern Flinders, both from the introduction of feral flora and fauna and from physical disruption of habitat. The State Government’s conservation programs such as “*No Species Loss*” and “*NatureLinks*” and the Federal Government’s “*Bounceback*” are based on regard for the environment as a whole. Producing a patchwork of varying biodiversity values – however derived – simply has no regard such wide scale conservation approaches in a fragile environment containing many rare or even endangered species.

RECOMMENDATION 3: That the relevant Ministers be advised that the mapping of biodiversity values does not have proper regard for the holistic approach taken in government conservation programs including “*No Species Loss*”, “*NatureLinks*” and “*Bounceback*”.

*Wilderness:*

This section simply acknowledges that there are areas of “*very high wilderness values*” (whatever that may actually mean) and points to a sympathetic management regime. Apparently the efforts of the Arkaroola Wilderness Sanctuary are to be acknowledged in this context at least. There appears to have been no attempt to map these wilderness values although doing so would make as much (or as little) sense as mapping landscape or biodiversity values.

It is not clear whether these values were in any event taken into account in the creation of the Access Zones. For example, if “wilderness” equates to the absence of tracks, the rest of the northern part of the Arkaroola lease merits the same classification as the Mawson Plateau.

That said, it is difficult to see what recommendation could be made to the relevant Ministers other than to note the importance of the whole area – something the Government is surely already aware of.

Cultural:

This section contains the only reference to the Adnyamathanha people and the cultural significance of the Northern Flinders Ranges to them. It makes no reference to the deep spiritual significance of the area to them, and whilst there are doubtless consultative processes already in place in a general context, there is no specific proposal in this section or any other part of “*Seeking a Balance*” concerning proper respect for Adnyamathanha country and culture in framing the Access Zones.

RECOMMENDATION 4: That the relevant Ministers be advised to ensure that proper consultation processes are in place with the Adnyamathanha people concerning their cultural issues in the Northern Flinders Ranges.

Mineral prospectivity and associated map:

Of all the “values” sections, the map of mineral prospectivity is likely to be the best supported by objective assessment given the extent of mineral exploration.

However, the fact that the Northern Flinders Ranges have been extensively mined since the beginning of last century is scarcely a reason for continuing to do so. Although there are mines all over the area, they are mostly small and now abandoned. The presence of uranium in the area has also been known for a long time, and Marathon’s own comparisons of undeveloped Australian uranium resources (Marathon Resources, Managing Director’s Report to the AGM, 2009) claim that Mount Gee is the fifth largest undeveloped uranium resource in Australia. However, the Marathon figures incidentally indicate that the known uranium deposit at Mt Gee is only about one fifth of the Jabiluka deposit and about half the Yeelirrie deposit. These figures pale into insignificance compared with the total measured, indicated and inferred resources of U<sub>3</sub>O<sub>8</sub> at Olympic Dam of around 2.4 million tons (BHP Billiton Annual Report 2009, pp70-71), so the assertion that the Mount Gee prospect “*is one of the most important uranium provinces in the world*” is pure hyperbole.

It is also noted that “*Seeking a Balance*” makes reference to prospectivity for the production of geothermal energy. Again, that may be true, but there is no indication

elsewhere in the report that would indicate that this is in contemplation. It is appreciated that there is some activity in this regard on the plain east of the Ranges but, given the hard granites of the Arkaroola area and the depths being drilled to the east, it is difficult to take seriously a proposal to set up a geothermal energy generation plant within the Northern Flinders Ranges precinct.

These observations do not lead anywhere except as further examples of blithe assumptions and unsupported statements. More detailed comments follow in the section of this submission dealing with the proposed Access Zones.

*Geoscience and Tourism:*

The whole tenor of the debate about the conflict between access to mineral resources and protection of the landscape and the environment is encapsulated in the statement “*just too precious to mine*”. As has been trenchantly observed by the Wilderness Society, “[t]he Northern Territory Government would not mine Uluru, the Queensland Government would not mine the Great Barrier Reef, so why is the South Australian Government seeking to entrench mining in the middle of the Arkaroola Wilderness Sanctuary?” ([www.wilderness.org.au/articles/seeking-to-entrench-mining...](http://www.wilderness.org.au/articles/seeking-to-entrench-mining...)) This is a good question.

Environmental and landscape preservation of this unique part of the country is an essential objective of itself. However, the practical spin-off is that the area is - as “*Seeking a Balance*” suggests – a valuable educational and tourism resource. However, the point missed is that the area is not only an educational resource from a geoscientific viewpoint, it is also a rich resource for environmental science. The monetary value of this may be difficult to quantify, but there is surely little doubt of its educational value to future generations.

It is much easier to quantify the value of tourism, and this is explicitly acknowledged through the conferral of the many tourism awards won by the Arkaroola Wilderness Sanctuary. However, whilst “*Seeking a Balance*” makes passing mention of tourism, there is (as has been mentioned previously) no analysis of that value against the value of mining combined with inevitable consequent loss of educational and tourism value to the State.

**RECOMMENDATION 5:** That the relevant Ministers be advised all data collected should be re-analysed without the assumption that access to mineral resources is a given, including a proper analysis of the financial and intangible benefits of preservation of the environment for educational and tourism purposes.

## Zoning and Conditions

There is little point in commenting on the conditions applying to the proposed Access Zones (or are they management zones?). These conditions could be more explicit, but presumably they are intended to be covered by the catch-all of approval by the Director of Mines and the Director of National Parks and Wildlife. It is, however, disturbing to read of conditions such as “*stringent conditions*”, “*minimal disturbance*”, “*rehabilitation*” without those terms being qualified. Nevertheless it is fair to note that DEH And PIRSA have extensive rules in place and are recognised for their competent management of environmental and mining issues.

That is not the real issue: what is more to the point is the determination of the proposed management zones. Leaving aside for one moment the central argument of this submission that mining should be banned altogether in the Northern Flinders Ranges, including the Arkaroola Wilderness Sanctuary, it seems to be an extraordinary coincidence that the areas of greatest uranium prospectivity are proposed to have Access Zone 2a or 2b conditions applied to them. This is notwithstanding that three designated geographical features listed in the Australian Register of the National Estate (Mt Gee, Mount Painter and The Armchair) occur within these zones. Indeed, the Arkaroola area itself is designated as a “type section” geological monument (PIRSA website [http://www.pir.sa.gov.au/minerals/geology/geological\\_monuments](http://www.pir.sa.gov.au/minerals/geology/geological_monuments)), yet Kingsmill Gorge immediately east of Arkaroola Homestead – the oldest known biologically built reef in the world - is shown in the proposed Access Zone 3. Access Zone 1 classification should be applied to the whole Armchair/Mount Gee/Mount Painter/Split Rock precinct – if such classifications are to be applied at all.

It is noted that areas of significant biodiversity only merit classification as Access Zone 2b, allowing at least some ground disturbing activities. It is not clear why a higher level of protection is not proposed, given the constant assertions about the importance of the biodiversity of the area.

It is also noted that a significant part of the Northern Flinders is designated as Access Zone 3. Does this reflect the relative paucity of mineral exploration and general difficulty of access? If so, it needs to be properly assessed.

**RECOMMENDATION 6:** That the relevant Ministers be advised that – if indeed any exploration at all is to be permitted –

- the whole precinct centred on Mount Gee be classified as Access Zone 1;
- the rest of the Arkaroola Wilderness Sanctuary be classified as at least Access Zone 2a and preferably Access Zone 1; and
- the rest of the Northern Flinders Ranges be properly assessed and classified appropriately.