

**To: Department for Environment and Water**

**Re: Kati Thanda-Lake Eyre National Park Draft Management Plan**

**19 July 2024**

## **Introduction**

AMEC appreciates the opportunity to provide a submission to the Department for Environment on the Kati Thanda-Lake Eyre National Park Draft Management Plan. We welcome the consultation materials that have been released to support development of the Park Management Plan.

## **About AMEC**

The Association of Mining and Exploration Companies (AMEC) is a national industry association representing over 570 member companies across Australia, with over 37 member companies with exploration project interests in South Australia. Our members are mineral explorers, emerging miners, producers, and a wide range of businesses working in and for the industry. Collectively, AMEC's member companies account for over \$100 billion of the Australian mineral exploration and mining sector's capital value.

## **State of the industry**

Mineral exploration and mining make a critical contribution to Australia's economy, directly employing over 274,000 people. In 2022-23 Industry generated a record high \$413 billion in resources exports, invested \$4.1 billion in exploration expenditure to discover the mines of the future, and collectively paid over \$63 billion in royalties and taxes.

South Australia's minerals sector has long been a key economic sector, directly employing 16,000 people in 2023, and hosting significant investment of explorers and miners working to advance minerals projects across the state. The commodities explored for and mined, represent a wide range of minerals critical to the energy transition and a decarbonised future.

In 2023, \$293.1M was spent on mineral exploration in South Australia, an 84.47% increase in original terms, from the \$128.3M spent on mineral exploration in 2022. Mineral resources exports were recorded at \$6.8B for 2022-23, while a record \$3.2B was spent on capital expenditure in 2023. In 2022-23, a record high of \$286.9M was generated in royalties from \$8.2B in mineral commodity sales, royalties are an important income stream for South Australia's ongoing prosperity, contributing to hospitals, schools and other key government services.

The range of projects across the state that transition from mineral exploration to production, will ultimately deliver high-value jobs and royalties of the future and long-term, ongoing social, environmental and economic benefits for the State and its communities.

## General Comments

In South Australia there is a joint proclamation provision allowing mining rights in some national parks and conservation parks. Kati Thanda-Lake Eyre National Park is one of these jointly proclaimed parks. This is noted in the 'Directions for Management' section of the draft plan:

*"Kati Thanda-Lake Eyre National Park is subject to joint proclamation under section 43 of the National Parks and Wildlife Act 1972. As a result, Kati Thanda-Lake Eyre National Park will continue to be managed primarily for conservation purposes while also allowing for approved activities associated with the exploration and extraction of mineral and petroleum resources.*

*These activities are subject to regulations set out in the Mining Act 1971, the Petroleum and Geothermal Act 2000 and the Aboriginal Heritage Act 1988. Mineral and petroleum development activities are not allowed in Elliot Price Conservation Park."*

### **AMEC recommendations for the Kati Thanda-Lake Eyre National Park Management Plan**

- Recognise the provision for exploration and extraction of mineral and petroleum resources within Kati Thanda-Lake Eyre National Park and for this to continue as is acknowledged in the draft plan.
- Include geological information of the Kati Thanda-Lake Eyre NP to support nature-based tourism and an understanding of the existing minerals exploration and value of mining in the adjacent regions of the mineral rich Gawler Craton.
- Accelerate an updated Multiple Land Use Framework to support co-existence of mineral exploration and mining with Aboriginal culture and heritage, tourism and other sectors such as renewables, agriculture and pastoral activities in this region and across South Australia.

## Mineral deposits, exploration and mining in Kati Thandi-Lake Eyre National Park

The Kati Thandi-Lake Eyre National Park is situated in the northeast of South Australia in a geological basin known as the Lake Eyre Basin<sup>1</sup>. The Lake Eyre basin is underlain by the Eromanga and Warburton Basins which are known for hosting oil and gas<sup>1</sup> in the Cooper region just over 100km to the west. There is a Petroleum Exploration Licence Application (not granted) that covers the northern half of the park.

The southwestern portion of the Lake Eyre North area of the park is located on the margins of the Gawler Craton which occurs at depth beneath the overlying basin sediments. The Gawler Craton is an area renowned for its rich mineral resources of copper, gold, silver, uranium and iron ore, and mines including Olympic Dam, Prominent Hill, Peculiar Knob and Cairn Hill are located 80-120km to the west of the park.

To date there have been no geological occurrences or deposits recorded by the Geological Survey of South Australia within the area of the Kati Thandi-Lake Eyre National Park. There are however, a number of surface mineral occurrences immediately adjacent to the margins of the northwest and southwest of the Lake Eyre North area of the park (see Attachment, Map 1). These are dolomite deposits containing magnesite that were discovered in the 1970s.

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<sup>1</sup> DEM. 2024 (viewed). Geology and Prospectivity.

<https://www.energymining.sa.gov.au/industry/energy-resources/geology-and-prospectivity>

There are also geological occurrences of the mineral celestite, a strontium rich mineral,<sup>2</sup> located adjacent to the margins (but not within) the Lake Eyre South area of the park, in overflow drainage areas.

There are currently three mineral exploration licences that touch on the margins of the lake to be just within the park boundaries (Map 1, Table 1). These include:

- EL 6837 and 6842 listed as searching for ‘all commodities’ and over areas with magnesite and dolomite occurrences and deposits. Feasibility studies were undertaken into the production of magnesia from dolomite rock feedstock, with potential for a calcining and hydration plant to produce 100,000 tons per annum of 95% Magnesium Oxide<sup>3</sup>.
- EL 6453 listed as searching for copper, uranium, cobalt, lead, gold, zinc, silver, nickel, molybdenum

### Mineral exploration and mining activities in jointly proclaimed parks

While there may be reservations expressed by some regarding the co-existence of mineral exploration with nature-based tourism and Aboriginal culture and heritage, there is a clear legislative framework to manage risks that includes the *Mining Act 1971* and related legislation.

Mineral exploration and mining licences manage risks through approval and compliance with a range of regulatory requirements including the requirement for mineral exploration and mining leases, and PEPRs (Program for Environment Protection and Rehabilitation) before activities can be undertaken. These approvals consider environmental, social and economic impacts and may only be granted after rigorous assessment is undertaken by the Department for Energy and Mining (DEM) with appropriate referrals to other Government agencies.

The Department for Energy and Mining (DEM) provides the following pragmatic approach to mineral exploration in jointly proclaimed parks.

*“South Australia’s mineral and energy resources are important to the state’s economic and regional development. The government recognises the importance of balancing conservation and resource use objectives. With a large percentage of the protected area system available for exploration and mining under strict conditions, the government is committed to the sustainable use of resources within an overarching conservation framework.”*<sup>4</sup>

DEM also provides the following information for mineral and petroleum exploration, mining and production in areas that are jointly proclaimed.

*“A joint proclamation allowing mining rights is a mechanism under section 43(2) of the National Parks and Wildlife Act 1972 which provides for the Governor to proclaim conditions whereby rights of entry,*

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<sup>2</sup> DEM. 1990. Open File Envelope No. 6825. Status Minerals NL. Consolidated Rutile Ltd. <https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/ENV06825.pdf>

<sup>3</sup> DEM. Open File Envelope No.1231. Western and Southern Lake Eyre Plains. Umbum Creek Pty Ltd. 1970. <https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/ENV01231.pdf>

<sup>4</sup> DEM. 20024 (Accessed). <https://www.energymining.sa.gov.au/industry/minerals-and-mining/communities-and-land-access/mineral-exploration-and-land-access/conservation-land>

*prospecting, exploration and mining may be acquired for national parks and conservation parks. This is qualified by section 43(5), which states that such a proclamation cannot be made unless:*

*(a) it allows for continuing rights vested in a person immediately before the commencement of the Act.*

*(b) the proclamation is made simultaneously with the proclamation constituting a reserve.*

*Mineral exploration and mining activities are possible only with approval of the Minister for Environment and Water as per the conditions of the park proclamation and in accordance with the management plan for the park.*

*This is also the case for petroleum exploration and production, except where a petroleum exploration licence was in force immediately prior to proclamation of the park. In this case, the proclamation may allow application for a production licence without approval of the Minister for Environment and Water.*

*Many recent additions to the reserve system have been made under joint proclamations, which allow existing rights to continue and future rights to be acquired. This means that there are some parks where access may be available to some parcels of land but not others within the park due to existing tenure.”<sup>5</sup>*

### **Mineral exploration – Kati Thanda-Lake Eyre National Park**

While Kati Thanda-Lake Eyre National Park has little mineral exploration activity within it currently, there should remain the option to explore for and access critical minerals in the future. Some critical minerals are very scarce and found in just a handful of locations around the world. Options should remain open in the future for access to scarce mineral resources.

AMEC seeks to ensure that the provisions for mining rights under section 43(2) of the *National Parks and Wildlife Act 1972* and the Kati Thanda-Lake Eyre National Park Management Plan continue to allow due process for these mining rights to occur. This includes existing mineral exploration licences and the consideration of future mineral exploration licences to continue being granted. This also includes consideration for other mining rights under the *Mining Act 1971*.

### **Approvals and compliance for mineral exploration**

There is a rigorous approvals process required under the *Mining Act* for mineral exploration activities to occur on a mineral exploration licence after it has been granted. This is administered by DEM and includes referral to a range of departments that have oversight for related legislation including the *Aboriginal Heritage Act 1988*, *Environment Protection Act 1993* and *Environment Protection Biodiversity and Conservation Act 1999* (Cth).

These approvals assess the risk of social and environmental impacts including; Aboriginal culture and heritage, landscapes, broadscale ecology, visual amenity, surface waters, subsurface waters of the Great Artesian Basin including mound springs, flora, fauna, biodiversity, conservation.

These align with and consider the range of values listed in ‘What are we looking after?’ on p.7 of the draft plan and the 3 Themes outlined in the document.

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<sup>5</sup> DEM. 2004. Conservation Areas. <https://www.energymining.sa.gov.au/industry/energy-resources/licensing-and-land-access/land-access/conservation-areas>

- Theme 1: Maintaining connection to Country
- Theme 2: Looking after the land and water
- Theme 3: Welcoming visitors to our Country

Approvals require mineral exploration companies to undertake mandatory engagement with traditional owners and for appropriate Native Title Mining Agreements to be negotiated<sup>6 7</sup> and Aboriginal Cultural Heritage clearances to be undertaken before activities can commence.

Approvals will consider impacts to all of these and mineral exploration licence applications over salt lakes should continue to be accepted and assessed for approval in accordance with current regulatory approvals as set out in legislation administered by the South Australian Government.

Similarly, ePEPR applications for mineral exploration activities should continue to be accepted and assessed for approval in accordance with current regulatory approvals as set out in legislation administered by the South Australian Government.

It is understood that in some cases approvals may not be granted. However, due process affording mining rights under the *Mining Act* and the joint proclamation under the *National Parks and Wildlife Act 1972* must be allowed to play out.

### **Mineral exploration on other salt lakes in South Australia**

Globally salt lakes are a major source of potash, lithium, borates and other strategic mineral commodities with Chile, Peru, Argentina and Bolivia having most of the world's low-cost supply of lithium in salt lakes, while Jordan, Israel and China are significant sources of potash.

In 2013, Geoscience Australia undertook an assessment of the mineral potential of salt lakes, identifying seven regions which contain salt lakes with potential for economic recovery of lithium, boron, potash and other commodities<sup>8</sup>. This included the Lake Eyre, Lake Frome and central Gawler region in South Australia. The preliminary favourability analysis of Australian salt lakes indicates that this region has potential for potash and/or lithium and/or boron deposits.

South Australia has numerous salt lakes with around 30 exploration licences and most lakes having licences over them. Some of the State's larger lakes, Lake Torrens, Lake Frome and Lake Gairdner are positioned above the basement rocks of the Gawler Craton which are highly prospective for metallic minerals. The Gawler Craton is at a shallow depth in these areas and considered accessible for mineral exploration and mining. These major lakes are jointly proclaimed parks and activity occurs according to the strict requirements of the *Mining Act* and with the approval of the Minister for

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<sup>6</sup> DEM. Aboriginal engagement, good faith negotiation and agreement making. 2023. <https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/MRGMG25.pdf>

<sup>7</sup>DEM. Native Title and Aboriginal land. 2024 (viewed). <https://www.energymining.sa.gov.au/industry/minerals-and-mining/communities-and-land-access/native-title-and-aboriginal-land>

<sup>8</sup> Geoscience Australia. 2013. A review of Australian salt lakes and assessment of their potential for strategic resources. [https://d28rz98at9flks.cloudfront.net/76454/Rec2013\\_039.pdf](https://d28rz98at9flks.cloudfront.net/76454/Rec2013_039.pdf)

Environment and Water as per the conditions of the park proclamation and in accordance with the management plan for the park.

### **Mineral Exploration co-existence with Kati Thanda-Lake Eyre National Park objectives**

It is recognised that the park is renowned for attracting visitors to its stunning natural scenery, unique landscapes and it is an important place for Aboriginal cultural heritage and the continuing culture of the Arabana People and Dieri People. Mineral exploration licences currently occur in a very limited area of the park and may continue to co-exist with agreements in place that do not impede Aboriginal Culture or de-value the growth of the tourism industry to Kati Thanda-Lake Eyre National Park.

Tourism and the protection of the environmental values of the park can confidently co-exist with mineral exploration and mining activities in South Australia supported by a strong regulatory framework that ensures risks to these sectors are appropriately assessed and potential impacts are monitored, and compliance is enforced. Decisions to undertake these activities are managed through appropriate legislation and regulation administered by a range of Government agencies including, the DEM, DEW, Environment Protection Agency and the Commonwealth Government's Environment Protection Biodiversity and Conservation Act.

There are many other high-value tourist regions around Australia that successfully support both industries. Examples include Tasmania's northwest multi-metallic mining province adjacent to Cradle Mountain National Park, the Hunter Valley wine region in NSW and the Capel region in southwest WA where mineral sands are mined adjacent the globally significant Tuart Forest and pristine beaches. South Australia has examples of successful mines operating under well-regulated conditions in areas of the State such as Iluka's Jacinth-Ambrosia mineral sands mine that has operated in the Yellabina Regional Reserve since 2009.

### **Multiple Land Use Framework**

The objectives of the Kati Thanda-Lake Eyre National Park Management Plan, including Aboriginal Culture and Heritage, and tourism, can co-exist with mineral exploration and potential future mining under the current strict regulatory conditions for approvals and compliance.

While there is a desire to discover mineral resources and develop these resources into mines there is also a desire to ensure this occurs harmoniously with other land users. An updated MLUF can provide access to land and resources while providing certainty to multiple user groups, of fair and reasonable access provisions and requirements, in line with contemporary land uses and practical considerations.

With strong and continuously increasing competition for viable land, it is important Government can provide a unified framework that does not favour one user-group or industry over another. A refreshed MLUF can reduce risks for industry and the State, providing more transparency and consistent regulation, and a best-practice approach to land access across South Australia.

AMEC recommends an update of South Australia's Multiple Land Use Framework (MLUF) should be undertaken as a priority and is a critical step to support all industries and landowners to develop a thriving economy that duly considers social, environmental and economic impacts. This update should receive appropriate funding and cross-agency resourcing to ensure an updated MLUF can be consulted on and delivered to the State as an urgent priority.

### **Final comment**

The State's mineral resources are owned by all South Australians, and the strictly regulated progression of exploration projects to operating mines ensures the maximum value is derived from the state's resources sector for its communities

Mineral exploration and mining applications and approvals are assessed in a risk-based manner to ensure minimal impacts on environment and community. This includes the mineral exploration in Kati Thanda-Lake Eyre National Park, all salt lakes and jointly proclaimed parks in South Australia.

We recognise the special conditions for operating in a jointly proclaimed park and seek to ensure that the Kati Thanda-Lake Eyre National Park Management Plan continues to recognise these. The rigorous legislative and regulatory frameworks in place for mineral exploration and mining in jointly proclaimed parks can ensure that the objectives of the park management plan, including Aboriginal Culture and Heritage and nature-based tourism can co-exist alongside the mineral exploration and mining sector.

AMEC welcomes further ongoing consultation and engagement with DEW on the Kati Thanda-Lake Eyre National Park and other park management plans throughout South Australia.

### **For further information contact**

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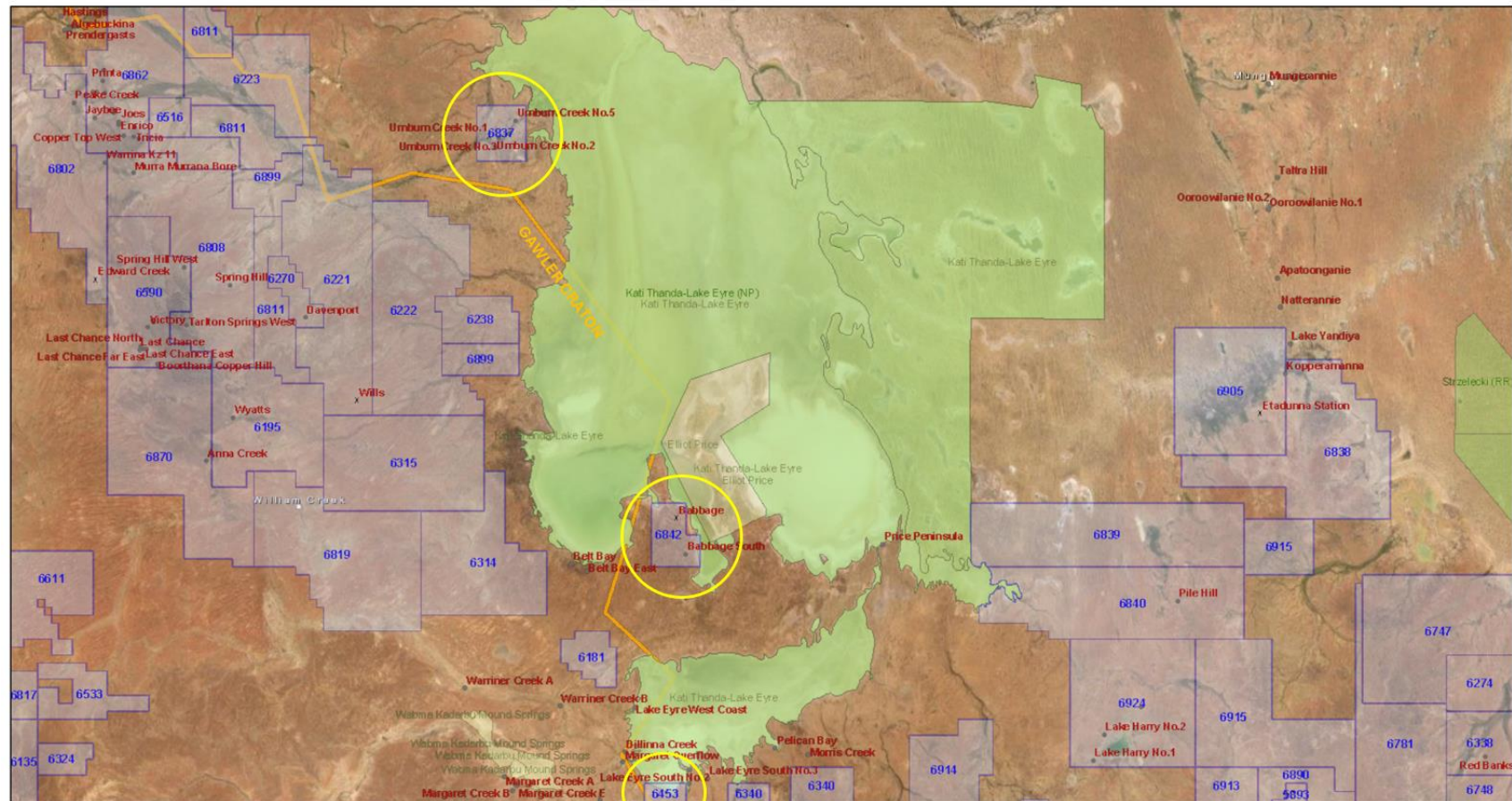
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## Attachment 1 – Map 1: Mineral exploration Licences, deposits and occurrences

(Source: [map.sarig.sa.gov.au](http://map.sarig.sa.gov.au))

### Lake Eyre and regions - Mineral Exploration Licences, deposits and occurrences



- Mineral Deposit / Historical Mine**
- Mineral Occurrence**
- Mineral Exploration Licence**
- National Park Restricted Mineral Exploration or production**
- No Mineral Exploration or production access**

0 10 20 40 mi  
0 15 30 60 km

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**Attachment 2 – Table 1: Mineral Exploration Licences information – Kati Thanda-Lake Eyre National Park**

| <b>Tenement Number</b>      | <b>Licencee / Operator</b>  | <b>Geological Deposits</b>  | <b>Commodities sought</b>   | <b>Tenement Start Date</b> | <b>Tenement Expiry Date</b> |
|-----------------------------|-----------------------------|---|---|----------------------------|-----------------------------|
| EL 6837                     | Bobcat Exploration Pty Ltd  | Umbum Creek No. 1-5<br>Dolomite & Magnesium at surface<br>Est. 20 Mt at 19%MgO<br>(not in park but adjacent area of EL) | All Minerals  | 19/09/2022                 | 18/09/2028                  |
| EL 6842                     | Bobcat Exploration Pty Ltd  | Babbage & Babbage South<br>Dolomite, Magnesium occurrence at surface  | All Minerals  | 21/09/2022                 | 20/09/2028                  |
| EL 6453<br>Prior<br>EL 5471 | Javelin Exploration Pty Ltd | Nil   | Copper, Uranium, Cobalt, Lead,<br>Gold, Zinc, Silver, Nickel,<br>Molybdenum | 04/09/2019                 | 03/09/2024                  |

*TABLE 1 – Details of exploration licences that are over small areas on the margins of Kati Thanda-Lake Eyre*