



**Contacts**  
President: Rob Bosley  
Secretary: Liz McLeay  
Treasurer: John Cugley



Mining Regulation and Rehabilitation Branch  
Department for Manufacturing, Innovation, Trade, Resources and Energy

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### Submission re Rex Minerals Hillside Copper Mine

The Friends of Gulf St Vincent (FoGSV) is a voluntary organisation that aims to foster a unified community approach to the protection and wise use of Gulf St Vincent. We are committed to playing a positive role in championing the Gulf in the face of new and ongoing challenges.

The purpose of this submission is to draw attention to what we consider to be significant shortcomings in the Rex Minerals mining lease proposal document. Our committee has sought advice from amongst its members and more widely to articulate our concerns regarding the establishment of a mine on Yorke Peninsula.

Whilst we do not claim to have expertise in assessing technical aspects of mining operations, there are wider environmental implications that, in our opinion, are not adequately addressed in the proposal.

Broadly the issues we raise, largely relating to how the mine is likely to affect the gulf, are:

#### 1) **Potential impact of the mining operation on aquifers in the vicinity**

Mining consumes huge quantities of water and produces wastewater with a complex and changeable chemical profile. The potential impacts are well-documented, and treatment of the wastewater requires continuous monitoring and analysis to determine appropriate treatment regimes.

The National Water Commission, recognising that groundwater use by mining operations needs to be managed rigorously and consistently, contracted Sinclair Knight Merz Pty Ltd (SKM) and the Sustainable Minerals Institute (SMI) to develop a framework for assessing the potential local and cumulative effects of mining on groundwater resources and to develop tools to help predict and assess these effects.

We would like to be assured that DMITRE is using these tools, or their equivalent, to assist in assessing likely impacts on groundwater.

#### 2) **Potential for leakage of contaminated water into the Gulf or adjoining aquifers**

We have seen the effect of nutrient and silt-rich water on the western side of Gulf St Vincent – extensive loss of seagrasses and the associated biota, combined with sand erosion at local beaches. Low rates of water mixing and circulation in the Gulf exacerbate these effects. Potential detriment to aquaculture enterprises on the eastern side of Yorke Peninsula should be considered. Metal contamination, possibly mortality (eg

*The Friends' principal objective is to foster a unified community approach to the protection and wise use of Gulf St Vincent*

in oysters) and increased turbidity due to dust and runoff are all feasible consequences.

What actions/safeguards can be enforced to prevent leakage of contaminated water into coastal habitats?

**3) Rehabilitation of the mine site**

The proposed mine site is extensive, highly visible and close to the coast. The rehabilitation strategy outlined in the proposal is minimal and inadequate, leaving the legacy of a severely disturbed mine site to the community once its operational life has ended. Regrettably there are many such examples, and local communities and taxpayers foot the bill to minimise pollution from these sites.

What conditions can DMITRE impose to ensure that the company's rehabilitation strategy meets the community's needs and expectations?

**4) Uranium content in the area to be mined and the potential for that to cause problems.**

The presence of uranium in the soils of this region adds to the complexity and hazard of the operation. Dust control is an obvious problem that looms for the mine managers. Prevailing westerly winds will inevitably disperse the dust at various times, impacting residents of neighbouring farms and towns, gulf waters and potentially even Adelaide.

What additional safeguards are mandated in South Australia when mining and processing ores in areas containing uranium?

Rex Minerals proposes to divert the Yorke Highway around the mine and directly along the coast. This area is known as the Sapphire Coast – an important coastal habitat – and a priority site of the World Wildlife Fund Australia Shorebird Conservation Projects. The region is also a stronghold of the Blue Swimmer Crab (our emblem). It would be disingenuous to think there will be no impact on the Gulf from these activities without best practices in civil engineering and construction.

We have not even touched upon a range of cultural and social reasons for not pursuing this development further.

We understand the imperative for economic development in South Australia, but urge mindfulness of lessons from the past, where resource extraction and processing have occurred at the cost of a permanent and ultimately expensive legacy for the residents of this State. A classic and comparable example of this is Port Pirie, where lead dust has affected residents' health over several generations, an international example of bad management.

Angela Gackle,

*on behalf of The Friends of Gulf St Vincent*



Port Noarlunga SA 5167