

# **Gypsum Mine, Shire of Irwin**

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**Report and recommendation of the  
Environmental Protection Authority**

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## **Background**

An application by Mr P C Hennessey for a Mining Lease (70/613) at Cliff Head, south of Dongara, was referred to the Environmental Protection Authority by the Department of Mines because it impinged upon a flora reserve (unvested C class, no.24496) which is part of the Environmental Protection Authority's Red Book recommendation 5.15. The application also covers vacant Crown land at Cliff Head where numerous squatters shacks have been illegally constructed (Figure 1).

Following discussions between the proponent and the Department of Mines, the proponent agreed to excise that portion of the land from the high tide mark easterly for a distance of 150 metres, and to the placement of a "no mining" condition on the portion of the land which is within Reserve 24496. Essentially the application for the mining lease now applies to a potential gypsum mining operation on vacant Crown land.

## **The proposal**

The proposal involves a small extraction operation using dozers, excavators and trucks in an area which has been subject to similar, though smaller - scale, mining activity in the past. The gypsum occurs within old coastal ridges and the extraction operation would involve clearing the vegetation and topsoil, which would be stockpiled, and mining the gypsum before spreading the topsoil and vegetation back over the area.

The Department of Mines has proposed to place a range of conditions on the lease which cover all environmental aspects of concern such as protection of the flora reserve and coastline, operational controls and rehabilitation. A mining plan would have to be submitted for the approval of the District Mining Engineer prior to the commencement of any productive mining. Details of the operation would be assessed at that stage by the Department of Mines in consultation with the Environmental Protection Authority, and appropriate environmental conditions would be incorporated into the approval of the mining plan.

## **Existing environment**

The area consists of low, undulating coastal dunes vegetated with low or tall heathland. The dunes are partially lithified, quartz/calcareous sands in the area of the proposed mining operation and grade into recent, unconsolidated, quartz/calcareous sands near the coast. The heathland is quite extensive throughout the region and is well represented within Reserve 24496, which extends for over 50 km along the coast.

## **Assessment and conclusions**

The main issues originally involved with the proposal were related to the protection of the coastline and of the flora reserve. These have been resolved by excising the land within 150 m of the coastline from the mining lease and by imposing a no mining condition over that portion of the mining lease which covers the flora reserve. Any application by the proponent to the Minister for Mines to remove that condition would be processed in consultation with the Minister for the Environment.

The land covered by the mining lease application is mainly vacant Crown land and is not included in any regional development plans by either the Shire of Irwin or the Department of Planning and Urban Development. Therefore, there are no land use issues related to the proposal.

The main issue is related to the rehabilitation standard following the mining operation. The proponent has indicated that the objective of the rehabilitation is unclear and depends upon negotiations about the future tenure of the land. The proponent has indicated the intent to apply for freehold title to the vacant Crown land and may wish to grow olive trees. The Authority believes that the standard of rehabilitation can be determined by the Ministers for Mines and Lands when the future tenure of the land is resolved. The Department of Mines proposes to place a bond on the lease requiring the lessee to achieve a suitable standard of rehabilitation.

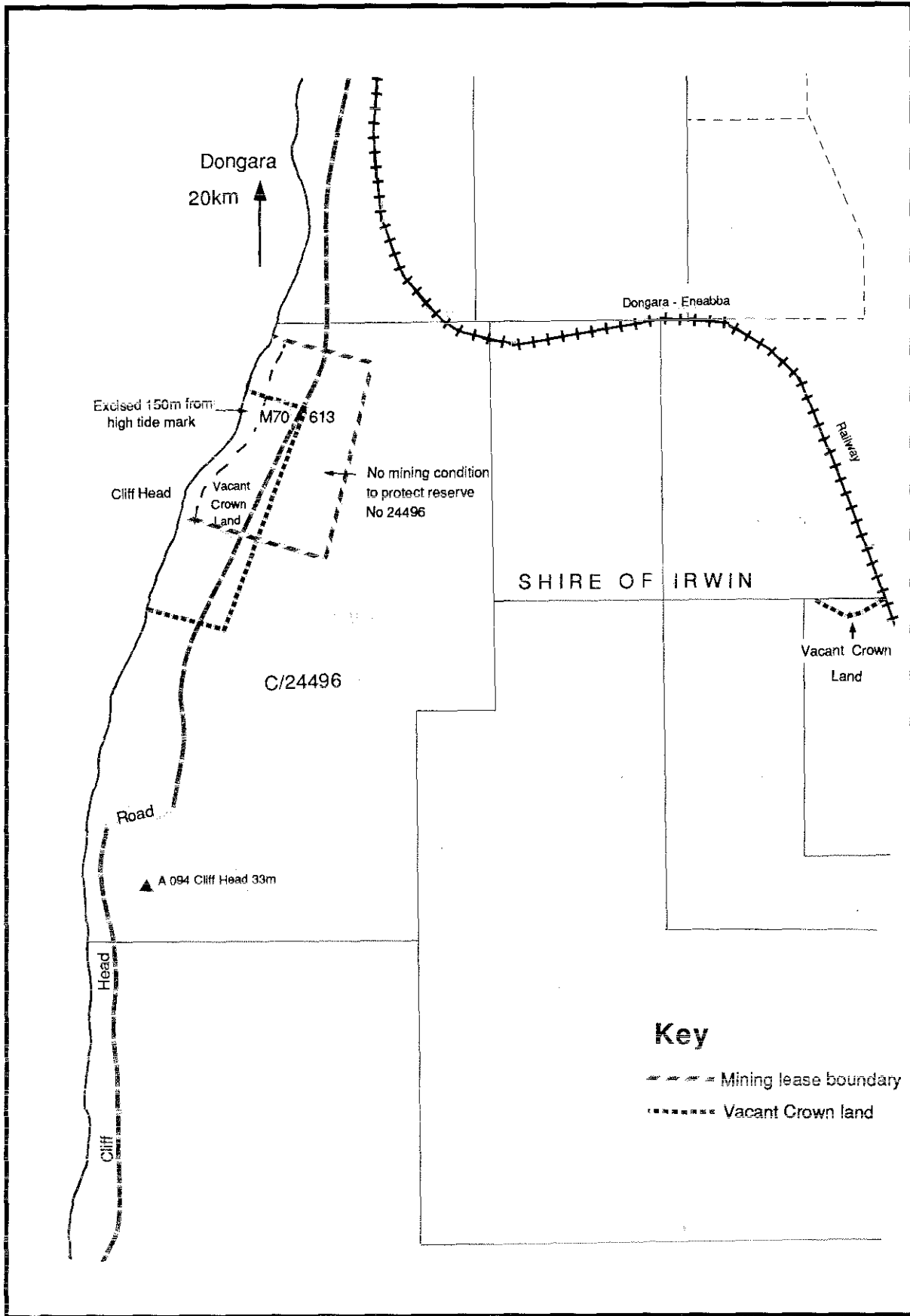


Figure 1: Location of ML 70/613.

Other issues are minor and are related to the daily operational situation of the mining operation. They include noise, dust, transport and maintenance of a camp/workshop and these can be resolved during the assessment of the detailed mining plan which will be required by the Department of Mines prior to any mining activity taking place.

### **Recommendation 1**

**The Environmental Protection Authority has concluded that the proposal to grant the mining lease ML 70/613, as modified during the process of interaction between the proponent, the Environmental Protection Authority, the public and the government agencies that were consulted, is environmentally acceptable. In reaching this conclusion, the Environmental Protection Authority identified the main environmental factors requiring detailed consideration as :**

- protection of the flora reserve and the coastline; and**
- rehabilitation.**

**The Environmental Protection Authority notes that these environmental factors have been addressed adequately by amendment of the lease boundary and by lease conditions proposed by the Department of Mines. Accordingly, the Environmental Protection Authority recommends that the proposal could proceed subject to the Department of Mines' proposed lease conditions (Appendix 1).**

The Authority notes that during the detailed implementation of proposals, it is often necessary or desirable to make minor and non-substantial changes to the designs and specifications which have been examined as part of the Authority's assessment. The Authority believes that subsequent statutory approvals for this proposal could make provision for such changes, where it can be shown that the changes are not likely to have a significant effect on the environment.



## **Appendix 1**

**Lease Conditions proposed  
by the Department of Mines**





Mining lease application 70/613 Department of Mines proposed conditions to be imposed:

1. Excision of a 150 metre wide strip measured inland from the high tide mark.
2. No mining activity within Reserve 24496 (Beekeepers' Reserve) without prior notification and consent of the District Mining Engineer and/or Environmental Officer, Department of Mines.
3. Condition 2 subject to written agreement of the Environmental Protection Authority acting in conjunction with the Departments of Conservation and Land Management, Planning and Urban Development and Agriculture.
4. Existing tracks are to be used wherever practicable for the movement of vehicles, machinery or equipment.
5. Off-track movements/activities are to avoid where practicable fragile areas such as dense vegetation, sand dunes, wetlands and watercourses.
6. All fire regulations and strict fire control measures are to be observed at all times to prevent fire in Reserve 24496.
7. Ground disturbed by development and mining is to be progressively rehabilitated using plant species and restorative techniques compatible with the site(s) ecology.
8. A mining and rehabilitation program is to be submitted to the District Mining Engineer and/or Environmental officer, Department of Mines prior to the commencement of activities, at regular intervals during the project, and prior to termination of operations.
9. The discharge of tailings and pollutants is to be kept to a minimum; and at the end of the project all waste materials, rubbish, equipment and buildings are to be removed from the lease area.
10. An unconditional performance bond to be imposed by the Department of Mines. Details to be determined by the Department of Mines in consultation with the applicant.