Y09/1872

NSW GOVERNMENT
Department of Planning

ASSESSMENT REPORT

Snapper Mineral Sands Project
Section 75W Modification

1 BACKGROUND

Bemax Resources Limited (Bemax) owns and operates a large mineral sands mining operation in the far west of NSW (see Figure 1).

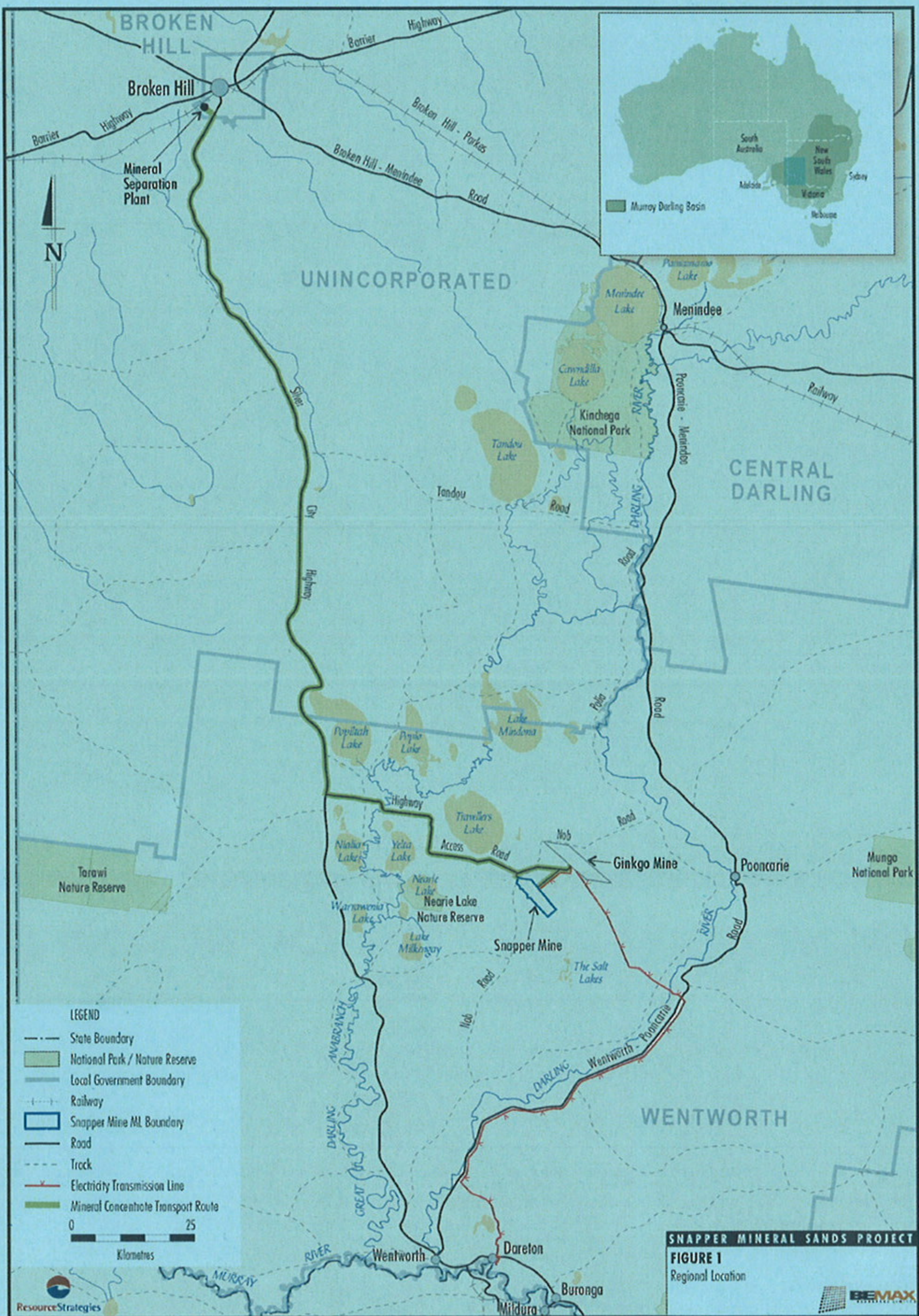

Figure 1: Bemax mineral sands mining operation.

The operation comprises the:

- Ginkgo mine near Pooncarie, approved by the Minister in 2002. Under the approval the mine is allowed to extract up to 13 million tonnes per annum (Mtpa) of mineral sands ore to produce an average of 450,000 tonnes per annum of mineral concentrate, over a period of 11 years;
- Snapper mine (approximately 10 kilometres south-west of Ginkgo), approved by the Minister in 2007. The Snapper mine has a similar production rate as Ginkgo, with a mine life of 18 years; and
- Broken Hill Mineral Separation Plant (170 kilometres north of the 2 mines), which was approved by the Minister in 2002 to process mineral concentrate from the 2 mines.

Under the Ginkgo and Snapper approvals Bemax is required to provide vegetation offsets to compensate for the vegetation clearing at both mines. The Ginkgo offset involves the conservation of 521 hectares (ha) of vegetated land contained within the northern portion of the offset area depicted in Figure 2. The Snapper offset involves the enhancement of 5,870 ha of vegetated land in the northern and southern portions of the offset area and the re-establishment of vegetation on 940 ha of cleared land in the southern portion (see Figure 2).

***Figure 2**: Approved offset*

2 PROPOSED MODIFICATION

On 4 May 2009, Bemax asked the Minister to modify the terms of its approval for the Snapper mine under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed modification has two components:

<u>*Alternative Offset*</u>
Since the approvals for the Ginkgo and Snapper mines were granted, Bemax has undertaken exploratory drilling near the "Trelega" homestead in the southern portion of the offset area and has identified a potentially recoverable mineral sands resource. To avoid sterilising this resource, Bemax proposes to replace the offset for the Snapper mine with an alternative offset (offset area 2 – see Figure 3). The northern portion of the approved offset would however be retained (offset area 1 - see Figure 3), and hence no change is proposed to the Ginkgo offset.

Figure 3: *Proposed modified offset*

Table 1 provides a comparison of the vegetation communities disturbed by the Snapper project, the vegetation communities occurring in the approved offset, and those occurring in the proposed modified offset.

***Table 1:** Vegetation communities in the approved and proposed modified offset*

Vegetation Community	**Disturbance area (ha)**	**Approved offset (ha)**	**Proposed modified offset (ha)**
Black Box Woodland	0	33	24
Black Oak-Rosewood-Wilga Woodland	1075	787	2,020
Chenopod Mallee Woodland/Shrubland	30	69	136
Irregular Dune Mallee Shrubland	0	1835	428
Bluebush Shrubland	200	342	331
Austrostipa Grassland	325	2784	574
Samphire Shrubland	0	20	0
Linear Dune Mallee Shrubland*	0	0	1,703
Total	**1,630**	**5,870**	**5,216**

As indicated in the table, whilst the proposed modified offset is smaller in total area than the approved offset, it contains a considerably greater area of established woodland (particularly Black Oak-Rosewood-Wilga Woodland).

Therefore, whereas Bemax's approved offset strategy was based on revegetation of a significant area of grassland (to woodland), the proposed modified offset strategy is based on protection and enhancement of existing woodland.

Removal of Offset Bond Requirement
Bemax is required under the Snapper project approval to provide an offset bond to fund remaining offset works after Year 10 of the project. The offset bond, calculated following an independent audit of the offset works progress, is intended to provide certainty that Bemax would be able to meet offset performance and completion criteria in its approved Offset Management Plan.

The offset bond was required, at least in part, because of the inherent difficulty and risks associated with revegetation of woodland in a semi-arid environment.

Given that Bemax's proposed modified offset is based on protection and enhancement of existing vegetation rather than establishment of new vegetation, Bemax considers that the offset bond requirement is no longer warranted.

3 STATUTORY CONTEXT

Approval Authority
The Minister was the approval authority for the original project application, and is consequently the approval authority for this modification application. However, as the proposed modification involves development with a capital investment of less than $50 million, the Deputy Director-General (Development Assessment and Systems Performance) may determine the application under the Minister's delegation of 4 March 2009.

Modification
The proposed modification does not involve changes to any of the mine's operating functions. Consequently the Department is satisfied that the proposed modification would not involve a "radical transformation" of the project and that it can be determined under section 75W of the EP&A Act.

Consultation
Under section 75W of the EP&A Act, the Department is not required to exhibit the modification application or undertake consultation. However, the modification application was referred to the Department of Environment and Climate Change (DECC), which subsequently provided its support for the proposal.

4 ASSESSMENT

The Department and the DECC believe that the proposed modified offset has a number of ecological advantages over the approved offset.

Firstly, it would provide for the long term conservation of a considerable area of existing, good quality woodland (particularly Black Oak-Rosewood-Wilga Woodland).

Secondly, whilst no threatened flora species were identified in the approved or modified offset, the conservation of offset area 2 would assist in protecting the habitat of up to 7 threatened fauna species.

Further, the proposed modified offset would:

- focus on the enhancement of existing native vegetation, rather than revegetation, thereby providing a greater degree of certainty, and lower risks, for realising offsetting goals;
- create habitat linkage between the Snapper and Ginkgo mines following rehabilitation and mine closure;
- provide similar habitat to that cleared for the Ginkgo mine, and potentially provide refuge for fauna displaced at Ginkgo; and
- provide for habitat restoration through de-stocking domestic animals, controlling feral animals, fencing remnant vegetated areas and increasing habitat structure, ground logs and hollows.

DECC stated that despite its smaller total area, the modified offset contains a greater amount of Black Oak-Rosewood-Wilga-Woodland, which is the largest impacted vegetation community disturbed at Snapper. DECC concluded that the overall condition of vegetation in offset area 2 is superior to that in the approved offset, as reduced grazing pressure has had less effect on the vegetation understorey.

Both the Department and DECC are satisfied that the proposed modified offset area is consistent with the offsetting requirements under the Snapper approval, and that the modified offset would improve or maintain the ecological values of the region over the medium to long term.

In addition, the modified offset would allow the potential future extraction of resources (in the approved offset area) that may otherwise be sterilised.

The Department has recommended a condition requiring Bemax to review and update its Offset Management Plan to reflect the modified offset.

With regard to the proposed removal of the offset bond requirement, it is noted that the sum of the bond is required to be based on the cost of completing all offset works remaining after Year 10 of the project, calculated following an independent audit.

Bemax states that these costs would most likely include:

- the purchase of land or access to land in the offset;
- fencing, signage, de-stocking and weed/feral animal control; and
- vegetation establishment costs, involving site preparation, seed stocks, nursery-raised tubestock and/or seedlings, seeding and planting, contractor costs/labour hire, equipment costs.

Bemax contends that the bond is no longer warranted, as it:

- has already the purchased the relevant Western Lands Leases for the offset areas;
- has already fenced the approved offset area and has committed to fencing offset area 2 by the end of 2010;
- would commence signage, de-stocking, weed and feral animal control whilst it fences offset area 2; and
- would no longer require significant vegetation establishment, given that the proposed modified offset area already contains established woodland.

Whilst the Department accepts that the modified offset area is likely to involve reduced revegetation costs, and recognises Bemax's existing offsetting works, it does not believe that the removal of the offset bond is warranted. The bond is an important mechanism to ensure that the performance and completion criteria in the Offset Management Plan for the project area are met. Meeting these agreed criteria is not only a function of the capital works invested (such as land purchase, fencing, etc.), but also of the management of the offset area over time.

The Department is therefore not persuaded that the offset bond condition should be removed. The Department notes that any offset bond amount would be substantially reduced, given that the remaining works in the modified offset area would likely be less than that required for the approved offset area.

5 CONCLUSION

The Department has assessed the modification application in accordance with the relevant requirements of the EP&A Act. Based on this assessment the Department is satisfied that the proposed modification would:

- likely improve the management of the Snapper vegetation offset;
- allow the potential recovery of resources that would otherwise be sterilised;
- not lead to any loss in regional biodiversity; and
- not cause any additional environmental impacts for the approved project.

The Department therefore believes that the modification is in the public interest and should be approved.

6 RECOMMENDATION

It is RECOMMENDED that the Deputy Director-General:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification would not "radically transform" the approved project;
- **approve** the proposed modification under section 75W of the EP&A Act; and
- **sign** the attached Notice of Modification (Tag A).

DKitto 15/6/09

David Kitto
Director, MDA

16.6.09

Chris Wilson
Executive Director, MPA

19/6/09

Richard Pearson
Deputy Director-General
Development Assessment and Systems Performance