

Mr David Mooney
Mining and Industry Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Mooney

**Ravensthorpe East Resource Recovery Project
Environmental Assessment Review**

I refer to your email of 29 January 2013 regarding Xstrata Mount Owen Pty Limited application for the Bulga Optimisation Project to modify its consent for the Ravensthorpe East mine to recover an additional 6 million tonnes of coal and increase the overburden dump height from RL160m TO RL 180m.

NSW Trade & Investment, Regional Infrastructure & Services, Division of Resources & Energy (DRE) has reviewed the *Ravensthorpe East Resource Recovery Project Environmental Assessment* (EA) dated December 2012 and provides the following comments which are directed at specific areas of DRE responsibility for this proposal.

MINING TITLE

As coal is a prescribed mineral under the *Mining Act 1992*, the proponent is required to hold appropriate mining titles from DRE in order to mine this mineral. DRE understand that this project is within existing mining leases (ML) held by Xstrata Mt Owen Pty Limited and ML 1476 held by Glendell Tenements Pty Limited.

Under the *Mining Act 1992*, rehabilitation is regulated by conditions included in mining leases, including requirements for the submission of a Mining Operations Plan (MOP) prior to the commencement of operations, and subsequent Annual Environmental Management Reports (AEMR).

REHABILITATION

Final Voids

The EA states that the West Pit void will be used for tailings emplacement for the life of the project and together with the Ravensthorpe East Resource Recovery Project (RERR) void will be retained for future ongoing tailings disposal if required (Section 6.10.5). If the voids are not required for future tailings disposal

the voids would be stabilised in accordance with DRE guidelines (Section 6.10.5.1).

The EA does not consider alternates to a final void should the void not be required for tailings emplacement other than to defer a decision until two years prior to mine closure. Rehabilitation of the void may be constrained by activities such as remote emplacement of spoil prior to the closure plan being developed. A contingency plan should be developed for if a void is remaining at the completion of mining at the Mt Owen Complex. This may include:

- Coarse rejects be disposed of into RERR void at completion of RERR mining operations.
- Spoil be located to west of RERR (burying pasture rehab if necessary) to enable capping of tailings or pushing into final RERR void if tailings do not fill void by close of mine.
- A tailings management strategy and land management strategy be prepared that includes the RERR void.

A tailings management strategy and land management strategy should be prepared that includes the RERR void.

Proposed Increase Spoil Emplacement Height.

The EA does not consider and assess alternate options for the location of spoil emplacement.

DRE does not support the proposed increase in spoil emplacement height to 180 metres. DRE recommends that the Proponent investigates the opportunities for placing the spoil closer to the RERR and the West Pit areas thereby providing opportunities for the voids to be backfill at the completion of mining and/or tailings emplacement and thereby providing maximum rehabilitation outcomes for the Project.

Spoil Emplacement Rehabilitation

Figure 3.4 the conceptual rehabilitation mine plan (Year 5) shows the contours being stepped and angular. This is inconsistency with providing a final landform typical of the surrounding natural landscape.

DRE recommend that the Proponent provide conceptual rehabilitation mine plans which blend with the surrounding natural landscape.

Rehabilitated Slopes

Section 6.10.8 states that it is proposed that the slopes of the emplacement would be "an average of 10 degrees", while Table 6.18 states "rehabilitated slopes are generally less than 10 degrees". DRE considers that a natural landscape would have slopes that are less than 10 degrees and that slopes greater than 10 degrees would be the exception.

DRE recommend that as stated in Table 6.18 rehabilitated slopes be generally less than 10 degrees, with steeper slopes the exception.

Mine Closure Plan

The Conceptual Closure Plan forms the basis of the detailed Final Closure Plan, submitted to relevant Government Authorities at least two years prior to the planned closure date.

A productive post mine land use for the Ravensworth East Mine may not be realised if activities that allow for future uses are not designed for as materials become available. For example disposal of spoil remote from voids increases transport cost of overburden and reduces the viability of backfilling voids.

Current pasture land use is being compromised by aging of exotic pasture species and weed infestation.

DRE recommends that:

- The spoil emplacements should be located close to the final voids so as not to make refilling of voids unviable in the future.
- The Land Management Plan be updated to include improved pasture management, for example return to grazing sooner rather than later to ensure nutritional value of pasture is maximised.
- The plan should address the Precautionary Principle (Section 8.3.1) for what could result from the various options for the void and demonstrate how a void meets the objectives of Intergenerational Equity (Section 8.3.2) to “maintain the health, diversity and productivity of the environment for future generations”.

Rehabilitation Vegetation

The Project includes a proposal to disturb approximately 54.2 ha of rehabilitation land. The “Rehabilitation (Grassland Complex)” (Section.6.7.3.1) describes vegetation of low ecological value. DRE considers that there may be limited soil able to be recovered from the previously rehabilitated areas for reuse. This may reduce the success of establishing a Grassland Complex community.

DRE recommends that the Proponent provide additional detail on how soils would be engineered and managed to facilitate the development of the proposed vegetation covers/types.

The EA considers the Rehabilitated Grassland Complex in terms of biodiversity value only. No criteria given for rehabilitation success, especially for pasture which could be as much as 70 % of the final rehabilitated land use. The EA provides no indication of the proposed biodiversity value of rehabilitated woodland communities (compared to nearby woodland remnants).

The EA does not identify a benchmark for agricultural production for the rehabilitated landscape other than "Pasture areas can be demonstrated to have a suitable carrying capacity of a specified head of stock" (Table 6.18). There is concern the pasture could be poor unless managed to maintain sufficient nutritional value from the start of the rehabilitation program. DRE recommend that any project approval include a condition regarding the productivity (agricultural class) of the pasture. The condition should include:

The post mining rehabilitation should be returned to agricultural production (for example livestock carrying capacity) similar to adjacent pastures, at a minimum. Methods to achieve the agricultural production standard, including monitoring, should be detailed in the rehabilitation / land management plan.

Cover Crops

The Project proposes to use a cover crop during adverse conditions for rehabilitation (Section 6.10.8). DRE consider this strategy acceptable for woodland rehabilitation; however questions the benefit of establishing a temporary cover crop instead of final pasture over an area that has been land-formed and had topsoil (or substitute) spread.

DRE recommend that the circumstances leading to the use of cover crops should be clearly articulated in a Landscape Management Plan.

Should you have any enquires regarding this matter please contact Julie Moloney, Principal Adviser, Industry Coordination on (02) 4931 6549.

Yours sincerely


William Hughes
Acting Director
Minerals Operations