Planning & Environment
Resources Regulator

OUT17/49826

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By email: paul.freeman@planning.nsw.gov.au

Environmental Assessment, Tahmoor Underground Modification 4, DA 67/98

Dear Paul

The Resources Regulator has considered the Environmental Assessment, Tahmoor Underground Modification 4, DA 67/98, dated 25 October 2017, and the Development Consent by the Minister for Urban Affairs and Planning (DA 67/98), dated 25 February 1999, as subsequently amended.

Tahmoor Colliery is seeking to modify the Tahmoor North Consent (DA 67/98) to permit 'low levels of subsidence within an area where subsidence is not currently permitted to occur under condition 6(i) of DA 67/98'.

The relevant surface features within the subject area comprise:

- Tahmoor High School
- dwellings and other associated built structures
- public utilities associated with the above-mentioned built features.

According to the information provided in the Environmental Assessment, Tahmoor Underground Modification 4, DA 67/98, the horizontal distance between the subject area and Tahmoor Colliery's longwall operation (i.e. Longwall 32) ranges from 185m to 210m. Under normal circumstances, 'low levels of subsidence', as predicted by Tahmoor Colliery, would be expected. However, there is a noticeable level of uncertainty about the likely extent of the subsidence because:

- the subject area is in close proximity to a major geological structure, i.e. the Nepean Fault
- there is a buried creek within the subject area. Any built structures located above this creek may be subject to the effects of valley closure/upsidence. Note that a number of buildings, including those within the Tahmoor High School are located above this buried creek
- there is a possibility that the above-mentioned buried creek is the surface expression of geological complexities, thus the potential for higher-than-predicted subsidence, in addition to the above-mentioned valley closure / upsidence
- some buildings within the Tahmoor High School may be more vulnerable to subsidence as compared with the nearby residential structures.

In our view, further information is required to understand the likely extent of the subsidence and the impact it may have on surface structures. This should include:

- an investigation into the potential effects of the Nepean Fault on the subsidence development within the subject area
- an investigation into the existence and effects of any potential geological complexities within the subject area
- an investigation into the feasibility of undertaking high frequency subsidence monitoring within the Tahmoor High School
- the undertaking of sensitivity analyses by competent structural engineers based on relevant subsidence scenarios.

Should you have any further questions in relation to this matter, please contact Tony Linnane, Director Mine Safety Operations on 4063 6409.

Yours sincerely

Anthony Keon
Chief Compliance Officer
NSW Resources Regulator

21 December 2017