#### 28 October 2014

Mr Paul Freeman Department of Planning and Infrastructure NSW Paul.Freeman@planning.nsw.gov.au

### RE: Mandalong Southern Extension Project Environmental Impact Study and Appendices – September 2013 Items for Consideration prior to Draft Conditions

I write to you regarding some matters which are of concern to the Mandalong Community Association – a group of landholders/residents who will be under mined by long wall caving (coal extraction) in the Mandalong area.

These issues are -

- Subsidence
- Munmorah Conglomerate
- Ground Water
- Company Commitments

#### 1. Subsidence

The Environmental Impact Study (EIS) and supporting documents show that the surface is predicted to fall by between 0.27 to 1.34m (average 0.73m) after mining. Further the EIS acknowledges that there will be some damage to houses and other buildings, and possibly "temporary" loss of water sourced from the alluvial ground water.

Subsidence causes measurable distortion to buildings etc. and some of the parameters are tilt, compressive strain and tensile strain. Limits to keep residences what is called "Safe, Serviceable and Repairable" (SSR) are set at -

- Residual tilt less than 7mm/m
- Compressive and tensile strains not greater than 4mm/m Cracks caused by tilt and strain have limits of 5mm in walls and 2mm in floors.

Both the EIS and Appendix M (Ditton, 2013) show that, based on predicted tilt and strain some 5% of houses are expected to have unacceptable levels of impact and will be above the SSR limit. The documents are relatively silent regarding the ultimate fate of these buildings, eg major repair, rebuilding or whatever.

It is acknowledged in Appendix M that on occasion actual tilt and stress is way above that predicted. These anomalies are put down to unforseen geological features. The community requests assurance, and further advice on -

- The fate of houses and buildings where the SSR limits are predicted to be in excess of the safe limits set down in the EIS, and
- When actual measured effects are much greater than expected.

# 2. Munmorah Conglomerate

As an aside both the EIS and Appendix M make much of the so called "bridging" capability of a unit called the Munmorah Conglomerate, which is in the overburden above the coal. There does not appear to be any evidence in either the EIS or supporting Appendices to show the lateral and vertical extent, other than brief references, especially by Ditton, 2013 (appendix M) in some tables, of this unit.

The community requests that data on the extent, laterally and vertically of the Munmorah Conglomerate, should have been and should be included as an integral part of the EIS as it appears to be a key component of the Subsidence Management Plan.

### 3. Ground Water

Much of the community relies on stock water dams sourcing the water from the Alluvial Groundwater. They also rely on this water to keep their pastures green during dry periods. The EIS show that cracking and drainage of this water source could occur, but claims that any cracks in the alluvium will soon heal, and the water level will rise. This is of little comfort to a land holder whose stock is bellowing with thirst around a dry dam.

The community is also concerned about predicted increased levels of flooding which may affect their access to their properties and necessary infrastructure.

# The community requests that -

- Close monitoring, especially over newly caved areas, of water features, ponds, dams, bores etc. be implemented.
- A commitment be made to immediately supply adequate water by whatever means until the affected structure has regained its prior water level.

# 4. Company Commitments

In Chapter 11 of the EIS the proponent presents its "Statement of Commitments". The community requests modifications to some commitments, in order to address some of their concerns. Specific sections of the Statement are referred to below –

#### Subsidence Monitoring and Management

The fourth (4<sup>th</sup>) point under this heading should be modified to reflect what we imagine will happen eg, "**Property Subsidence Management Plans for each potentially** 

impacted property will be prepared by Centennial Mandalong after consultation with affected owner/occupiers, and will include recommendations by DGS (unqualified) in the EIS".

We believe restriction of DGS's input to 2013 and prior to be unacceptable

#### Groundwater

The second paragraph, which contains a commitment to inspect alluvial groundwater levels once a year is unacceptable.

A commitment to "regularly inspect areas affected by recent (to be defined) extraction and caving, and to immediately remediate any effected ground water structure eg dams, and if necessary provide alternative supplies of water" should be made.

#### Post Mining Closure and Rehabilitation

The section on Post-Mining Closure and Rehabilitation commences with the words "Within five years of closure .....". This is ambiguous and could be either pre or post closure. To adequately reflect what is said in the body of the text this commitment should commence with "Within five years <u>prior</u> to mine closure.....). This issue is of community, state and national concern.

Thanking you for your attention.

Sincerely

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