50 Mangoola Road
Denman NSW 2328

Mr David Kitto
Director-General's Nominee
Mining and Industry Projects
Department of Planning & Infrastructure

Dear Mr Kitto

Re: Submission – Xstrata Coal Mangoola Open Cut Mine Modification (MP 06_0014 MOD6)

The following submission is in response to the Environmental Assessment (EA) documents currently on exhibition for the modification of operations at the Mangoola Coal Open Cut Mine. This submission had been prepared based on a review of the publically available EA documents, Best Management Practice (BMP) studies, the Director-General's requirements (DGRs) for the project and the following NSW Government guidelines:

- NSW Industrial Noise Policy (NSW INP); and
- NSW Office of Environment and Heritage *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales ('Approved Methods')*

The air quality EA and the noise and vibration EA have several points not in accordance with the Director-General's requirements for the modification application MP06_0014 MOD 6. Cumulative impact assessment appears to be applied in an ad hoc fashion throughout the documents and not to all parameters that are required in the DGRs. The display of environmental assessment data in some of the contour diagrams and tables are not in accordance with the Director-Generals requirement, the NSW INP and the air quality *Approved Methods* as outlined below. These discrepancies are misleading to the community and are described in detail below.

Appendix E – Noise and Vibration Assessment

i. The Director-General's requirements (DGRs) state that the EA must address monitoring and management measures for noise, specifically predictive meteorological forecasting. Section 5.1.2 of the assessment states the Noise management Plan (NMP) 'will consider pro-active and predictive modelling and management' of noise emissions. No details are given in the EA as to design of the predictive meteorological forecasting system, the performance indicators and the planned changes to mining operations in predicted meteorological adverse conditions. An updated version of the NMP showing the DGRs should be included with the EA documents as part of the assessment process.
ii. Section 3.2.1 ii of the EA states that atmospheric stability class F occurs for more than 30% of the winter period making temperature inversions a 'feature' of the region and to be included in the assessment in accordance with the INP. Given the nature of the Hunter Valley and the prevalence of temperature inversions it would be expected that attention is given to the implementation of best management practice (BMP)

measures. The EA does not appear to give consideration to the following measures from the INP (Section 7.2):

a. *scheduling the use of noisy equipment at the least sensitive time of day*
b. *where there are several noisy pieces of equipment, scheduling of operations so they are used separately rather than concurrently.*

iii. The Director-General's requirements state that a quantitative assessment of potential reasonable and feasible mitigation measures must be performed. Section 3.3 of the EA describes that 'other' noise mitigation measures were considered and ruled out due to 'analysis of their reasonable and feasibleness'. This analysis is not included in the EA for public viewing. Given the sensitive nature of the Mangoola Road region to noise emissions, it is expected that the analysis of other mitigation measures be included in the EA for reasons of transparency and to allow assessment by the Department of Planning and Infrastructure. The mitigation measure of restriction of all operations at night time (irrespective of elevation) under adverse weather conditions has not been included in the EA. This section of the noise and vibration EA must be expanded to provide the analysis and transparent decision making process behind the statement on reasonable and feasible mitigation measures.

iv. The cumulative operational noise impact of the neighbouring Bengalla Mine and Mount Arthur Coal mine are not considered in the EA, as stated in Section 2.2.3. As stated in the EA, the Upper Hunter has a feature of temperature inversions during winter for more than 30% of the period making the transmission of noise in the region between the increasing mining operations highly relevant. It is not appropriate given the sensitive nature of the region to noise emissions to state that 'it is not expected to generate noise levels that would that would add cumulatively to Mangoola Coal'. An assessment of cumulative impact must be performed for all receptors in the Mangoola Coal region, including the projected noise emissions from the planned expansion of the neighbouring mines. This is especially pertinent given the current Major Project applications for the SSD5170 Bengalla Continuation Project and the Mt Arthur Coal open cut modification.

v. Figures C.1, C.2, C.3 show the noise contours due to the proposed modification only. The Figure C.4 shows the current operations and the proposed modification noise contours separately. There are no diagrams of the total noise emissions due to both the current operations and the proposed modification, i.e. the cumulative noise emissions.

Appendix F – Air Quality and Greenhouse Gas Assessment

The shortcomings of the air quality impact assessment (AQIA) when compared against the Director-General's requirements for the project, the NSW *Approved Methods* and community expectations were considerable and are outlined below:

vi. The Director-General Requirements require assessment of PM_{10} and $PM_{2.5}$ emissions. Section 7.1 Emission estimation includes TSP emissions only; this section of the EA must be expanded to quantify PM_{10} and $PM_{2.5}$ emissions for completion purposes.

vii. PM_{10} and $PM_{2.5}$ and gaseous emissions from onsite mobile equipment are not quantified and appear to be not included in the modelling.

viii. Meteorological data for the purposes of air quality dispersion modelling was generated by a modelling package. Only one year of this generated meteorological data was used. There is no validation of this data against the on-site meteorological

stations or against long-term meteorological data for purposes of demonstrating representativeness. Preference must be given to on-site data from a traceable, calibrated meteorological station for air quality impacts, especially given the complex terrain at Mangoola Coal.

ix. Emissions to air from nearby mines were not included. With development applications currently in progress for Mount Arthur Coal and Bengalla Mine, these emissions must be included in the EA for reasons of accuracy.

x. Winter $PM_{2.5}$ concentrations from the Muswellbrook EPA monitoring station were not included in the baseline assessment. This data is the most representative of the region. The purpose of the assessment is to assess the ambient air that the receptors in the region are exposed to and must include the local baseline measurements from the local monitoring station in order to be representative of the conditions.

xi. The EA does not demonstrate that 80% control efficiency is achieved on the haul roads. The claims in the EA must be supported by quantitative analysis using a recognised measurement method covering results from all meteorological conditions experienced at Mangoola Coal.

xii. Cumulative impact assessment is required by the Director-Generals requirements. Cumulative 24 hour averaged PM_{10} emissions are assessed only at the four monitoring stations. This assessment approach is inadequate and does not provide accurate information on the number of residences impacted.

xiii. Cumulative $PM_{2.5}$ was not included in the assessment (Table 11.1 – 11.4, 11.6-11.7) despite being a requirement of the Director-General for the proposed modification.

xiv. Incremental TSP, PM_{10} and $PM_{2.5}$ were compared against the National Environmental Protection Measure (NEPM) criteria in Tables 11.1-11.4 and Tables 11.6-11.7. These criteria are intended for total impact (incremental + baseline) only. It is highly misleading to compare incremental concentrations for the proposed modification against the NEPM criteria. This inappropriate comparison appears to be a deliberate ploy to deceive the community into falsely believing that air quality emissions comply with health criteria.

The noise and vibration assessment has some shortcomings as outlined in this submission. For reasons of transparency, the community would benefit from more discussion on analysis and selection of noise mitigation and management measures and inclusion of neighbouring mines in the noise impact modelling. Cumulative noise contours of current operations and the proposed modification must be provided in the EA.

In light of the number of deficiencies in the air quality and greenhouse gas assessment, it is appropriate that this environmental impact assessment process is repeated with compliance with the Director-Generals requirements for the proposed modification being of paramount importance. The air quality and greenhouse gas assessment dated 23 May 2013 is not scientifically sound and appears to set out to deliberately mislead the community.

Yours Sincerely

Pat Keegan
28 June 2013.