I wish to express my opposition to the proposed Hume Coal Mine Project as documented in their Environmental Impact Statement which is now open for public comment and submissions.

I oppose the Hume Coal project for several reasons outlined below and primarily because I believe the water impacts as disclosed in the EIS are significant and unacceptable. Groundwater issues are inadequately reported or modelled in the EIS and there is a lack of data to support an assessment of the impacts of the proposal on surface water and groundwater.

Adaptive management regimes are not feasible in this sensitive geological and historic area. I firmly believe that the Precautionary Principle must be adopted as the risk of significant environmental harm is apparent and it is not mitigated by a "don't worry about negligible impacts assurances" from the proponent nor "suck it & see" conditions of consent.

The impact of the proposed coal stockpiles and mine operation on the amenity of the residents of Berrima and across the Southern Highlands would appear sufficiently detrimental to warrant refusal of the project. The depth of opposition from the residents and business owners across numerous villages in close proximity to the proposed development is neither acknowledged in the EIS nor taken seriously by the project proponents.

Environmental and social impacts of the project must be weighed: under EPA sec75J and this has not been sufficiently done in this EIS.

It is apparent even to a layman, wading through the mountains of technical information, that there are threats of serious environmental harm should this proposal receive development approval.

Dewatering of the sandstone groundwater aquifers, would change the Highlands ecology and may prevent future access to bore water for current agricultural & commercial purposes. The "make good" assurances made in the EIS appear ludicrous when the actual logistics of such assurances are considered.

The EIS discloses adverse impacts on local streams, by discharging pollutants in the water discharged from the mine which are likely to affect the quality of water in the Medway Rivulet & Oldbury Creek, both of which are tributaries into the Wingecarribee River (and part of the Sydney Water Catchment area)

There is clearly scientific uncertainty regarding these impacts and the possible mitigation of these impacts. There is a requirement for proponents to show either that found threats do not exist, or that such risks can be effectively managed. Mere assurances that the risks are "negligible" are unsatisfactory.

Application of the precautionary principle and the concomitant precautionary measures is triggered by the satisfaction of 2 conditions, precedents or thresholds: **a threat** of serious or irreversible environmental damage **and scientific uncertainty** as to the environmental damage.

I believe that there is a sufficiency of evidence that there **MIGHT BE** serious or irreversible environmental harm caused by this development proposal.

In addition, I believe that the economic assessment is deficient as it apparently ignores the development strategies and planning frameworks endorsed and developed by the regions local government and State tourism bodies. Local evidence supports the negative impact on investment, jobs growth and property valuations directly caused by the Hume Coal Project plan.

Their EIS purports the construction of a mine where basiceconomic analysis suggest that the revenues generated by such a small mine may well be insufficient to pay even the remuneration costs of the staff employed. The supposed jobs to be created appear to be "very rubbery numbers plucked from the air" estimates with no details as to probable organisation structures or the identification of key job competencies required in support of these "new jobs". I well remember the initial claims of 1200 new jobs in the early days of Cockatoo Coal's exploration work.... There appears to be no serious effort in the EIS placed into professional workforce planning. Yet the EIS they are proposing what appears to be the most expensive operational coal mine in Australia, if not worldwide. Not a firm foundation for organisational success or sustainable job opportunities and security.

In addition, the heritage values of the Southern Highlands appear to be dismissed and trivialised within the EIS by suggesting "minimal or negligible impacts" to heritage listed areas. The EIS avoids any discussion of or attempt to understanding the significance of the Highlands or assess its cultural significance which are the first two steps in the Burra Charter Process. Establishing cultural significance is an essential step in developing the best policy for a conservation and heritage areas such as the Southern Highlands. The Hume Coal proposal is, I believe, a highly inappropriate development given the Highlands unique geology, history and landscapes and the project presents

an unacceptable and permanent risk to this unique area of NSW and Australia. The EIS suggests that predicted affected bores **may** achieve full recovery within **72 years** after mining operations cease, yet there is evidence that bores in the area which were affected by recent mining activity at Medway, have been **permanently** de-watered. (this impact was accepted by all water experts in a recent LEC case) The risks of such damage from the proposed Hume Coal project is unacceptable and raise issues of intergenerational consideration.

Whilst I am not fully across all the technical issues, it is clearly apparent that the impact across the regions water resources will extend **outside** any mining lease area and the impacts over time can be expected to be significant and will impact on Groundwater dependent ecosystems across the Highlands. I note that the project is within a Sydney Water Catchment area. I understand that it is a criminal offence to in any way pollute within the catchment areas. The predicted water quality impacts on Oldbury Creek, the Medway Rivulet and the Wingecarribee River pose an unacceptable risk to the environment and the Sydney Water Catchment regime at any time.

In addition, the proposal to dispose of untreated mining reject /coal wash waste and other noxious waste products from the mining operation by creating "slurry" and emplacing the rejects back into the mining voids is extremely risky. The Hume EIS assumes that reject emplacement behind bulkheads is a risk free process. Yet it is apparent, even to novices, that the design of such bulkheads is complex and their physical construction and permanent installation in a very wet mine operating environment must be problematic with significant OH&S risks, let alone environmental consequences of hydraulic failure at any time.

It is unacceptable to place noxious liquid sludge underneath a productive and pristine acquifer system where there is no physical separation between the clean water in the acquifer and the polluted mine waste water.

In summary, I believe that the precautionary principle must be activated by the assessors of these projects as the risk of significant environmental harm is uncertain (& arguably high) and cannot be mitigated by conventional adaptive management regimes or "conditions of consent". I respectfully ask that the Department of Environment and Planning and the PAC recommend the **refusal** of this mining project and associated developments in the Southern Highlands.

Submission by Jenny Frost of 299 Oldbury Road, Moss Vale.