



October 2007

Southern Coalfield Panel Secretariat
c/- Department of Planning
GPO Box 39
Sydney NSW 2001

Inquiry into NSW Southern Coalfield - Independent Expert Panel

Thank you for the opportunity to make this secondary submission to the Independent Expert Panel.

The Panel made the following requests of TEC following our oral presentation in Camden:

1. To provide the panel with a copy of a joint SCA / Macquarie University technical report into upland swamps in the southern coalfield.
2. To provide the panel with evidence that the SCA complained to the DPI about Peabody Energy's approach to their SMP for Longwalls 13-17 just prior to approval.
3. To expand on our ideas of how an improved regulatory process could protect important natural features in the Southern Coalfield.

The first document has been provided through Paul Freeman in the week following the hearings. The second request can be satisfied by viewing the quote from the SCA's Ian Landon-Jones in the TEC Dossier '*What happened to the Waratah Rivulet?*' (p.9) - a document designed to chronologically illustrate the impacts on and the deterioration of the rivulet in the years leading up to that approval. A copy of the email is attached in the hard copy of this submission.

Our response to the final request forms the bulk of this submission.

Although its fundamental role is yet to be achieved, we feel the inquiry has already proven useful in further defining the key conflicts in this issue: prevention versus remediation, prediction of impacts versus prediction of subsidence, certainty of environmental protection versus the certainty resource security, and the application of the precautionary principle versus an extractive industry intensifying in the face of poorly understood or unknown impacts.

TEC believes that certainty is required for aquatic ecosystems and an intact long-term water supply for Sydney and the Illawarra. This certainty must be given at least parity with that demanded by the longwall industry for its own purposes.

We are in the process of seeking additional legal advice regarding the legislative and/or regulatory changes that would be required to implement an improved regulatory process along the lines we suggest.

David Burgess
NATURAL AREAS CAMPAIGNER



TOTAL ENVIRONMENT CENTRE

**Supplementary Submission to the
Independent Expert Panel**

**INQUIRY INTO NSW SOUTHERN
COALFIELD**

9 October 2007

Supplementary Submission to the Independent Expert Panel

In its submission to the 2002 Audit of the Sydney Drinking Water Supply Catchments, conducted by the CSIRO, the New South Wales Minerals Council argued that, "While mining's generally localised impacts are potentially important and require close management and monitoring, the NSWMC emphasises that a major factor to be kept in mind in relation to current mining operations in the catchment is *proportionality*."

Presumably the NSWMC was only referring to surface areas impacted by mine installations when stating "mining land use accounts for only 0.1% of the area of the Sydney water supply catchments".

At the Inquiry hearings conducted by the Panel in September, the Sydney Catchment Authority submitted that up to 91% of the Metropolitan, O'Hares and Woronora Special Areas stands to be impacted by longwall mining practices.

In TEC's major submission to the Inquiry, we refer to the intensification of longwall mining during the past decade, i.e. the spread of panels across the southern catchments and beyond into the greater upper catchment of the Hawkesbury-Nepean system to a point where nearly all of the major rivers have been affected. The industry is now looking to expand further at the southern end of the Illawarra Escarpment. We also refer to the inadequate assessment of the cumulative impacts of longwall mining in the region on vital, yet poorly understood, water systems.

The question is indeed one of proportionality.

However, the mining industry's position has since shifted from proportionality being the key factor to one where the assessment of mining proposals is seen as a "trade-off between all environmental, social and economic factors".

TEC submits that the integrity of a whole river system and water source should not be pushed to the situations we have now experienced – facilitated through unmeasured cumulative impacts and 'trade-offs', justified on the basis of poorly understood science and broad assumptions that remediation is successful and that water is returning to the surface.

The NSWMC have argued that mines should be assessed on a case-by-case basis. BHP Billiton has also stated to the Panel that "if the lodging of an SMP is perceived as the beginning of some sort of negotiation process, BHP Billiton will put in less sensitive plans" and that the company would rather see the uncertainty of preparing mine plans removed from the SMP process and placed under section 3A of the Environmental Planning and Assessment Act (EP&A Act) 1979.

This is discussed in detail in the second part of this submission. However, it is clear to us that the industry is making a far from subtle push for long-term approvals with a self-regulatory approach to environmental management.

The threat by BHPB to put in "less sensitive plans" should sound urgent alarm bells to those trying to regulate the environmental impacts of longwall mining, and indicates that mining companies cannot be trusted to self regulate and apply appropriate adaptive management practices in sensitive water dependent environments. While encouraged by the preventative approach and risk model being advocated by the Department of Environment and Climate Change, TEC believes it would be a serious mistake to assume that detailed mine planning can allow for adaptive management.

Once the first workings are established, however, detailed mining planning cannot be adequately adaptive to prevent damage to essential assets. SMPs can only lessen the damage and, in their current form, should be seen as an inadequate harm reduction mechanism.

The 'certainty' that is being demanded by the industry must be counterbalanced by prevention mechanisms that provide certainty to the rivers and streams of the upper Hawkesbury-Nepean River catchment and the Special Areas. Certainty must also come for the health of upland swamps and aquifers.

The next section submits a regulatory framework TEC believes would ensure adequate protection for water dependent ecosystems within the Southern Coalfield. This framework lists the natural features for which we see mandatory prevention measures as being essential. We also believe that the risk model submitted by DECC can be absorbed into this framework, but with enforceable constraints and thresholds placed upon the industry.

We have deliberately avoided re-addressing the 1000m buffer policy currently held by NSW environment groups. It is our view that it is not an appropriate time to discuss this while industry is:

- pushing for long term approvals and the scrapping of SMPs altogether (BHPB);
- running environmental strategies "totally reliant" on remediation (Peabody);
- discussing whole catchments in terms of "trade-offs" (NSWMC);
- unaware of any successful remediation or possible remediation of upland swamps (BHPB);
- boasting the prediction of a rivulet drying up as a success (Peabody); and
- constantly submitting mine plans on a timeframe with pressure to approve (all); and

while agencies responsible for managing these areas are questioning whether remediation is working, whether mining company monitoring is targeted or

accurate and whether water is returning to the system or whether the near-surface aquifers will hold water.

Should the opportunity arise - and where there is a genuine will shown by all parties to *prevent* subsidence induced damage to upland swamps, rivers and streams, rock bars and pools, river gorges and cliff formations, threatened species habitat or endangered ecological communities and Aboriginal heritage sites - we, along with other groups who have worked on this issue for many years, would be more than happy to discuss this position with all stakeholders.

Framework for a new regulatory system to prevent the impacts of longwall mining on the environment

The Department of Environment and Climate Change has included in its submission into the Southern Coalfield Inquiry an 'Ecological Risk-Based Decision-Making Model'. Its intent to prevent damage is welcome, but the recommended processes will not assure achievement of this objective.

A NEW REGULATORY INSTRUMENT

As the inquiry is primarily headed towards making recommendations that incorporate assessing longwall mining applications under Part 3A from 2010, TEC feels it appropriate to clarify our position on Part 3A of the EP&A Act 1979:

Part 3A turns away from a community-based approach to one where a great deal of unfettered discretion is given to the Minister to make decisions on major projects. This discretionary model cuts away at public participation, leaving decisions about the level of involvement of the community with the Department and the Minister.

Moreover, there is no real environmental framework within which decisions can be made. The Minister has still not published guidelines for environmental assessment requirements nearly two years after Part 3A commenced. Second, the notion of a concept plan – and approval of such - is inconsistent with good environmental decision-making. Proper assessment of environmental impacts cannot occur in the abstract – detailed information is required about the specifics of a project: its location, size, operating output and the activities to be conducted.

In regard to underground coalmining, TEC would therefore:

Consider the option of placing all future longwall permissions under Division 2 of Part 3A, as from now – that is, the government undertakes not to consent to further longwalls (first workings, second workings,

new layouts) as an interim measure, until a new regulatory system (complete with a regulatory instrument) is in place, with powers of consent held jointly by the Minister for Planning and the Minister for Environment.

Associated with these would be a regulatory instrument (not guidelines) that:

- specifies risk levels and aligned actions (prevent damage, minimize and monitor) that include minimum buffers for the first two;
- requires early consideration of mine layout by regulatory agencies and community representatives, prior to submittal of Part 3A application;
- provides accurate information on natural features potentially at risk prior to the early consideration.
- provides scope for the cumulative impacts of longwall mining to be assessed and regulated across catchments, sub-catchments, swamp clusters and aquifer systems.
- renaming Subsidence Management Plans as Subsidence Avoidance Plans (SAPs)

These regulatory features and data should operate with the objective of creating a clear route to environmental protection; thus ruling out the current approach of remediation strategies and 'gaming' on the process by mining companies.

PRELIMINARY MINE PLANNING & RISK ASSESSMENT

DECC (and SCA when appropriate) should urgently identify and map natural features prior to the early consideration of a mining approval. These maps should be placed on public exhibition along with a regulated period for community input.

If (as proposed by DECC) natural features and risk categories are to be identified in an area to be mined, there is a good case to argue that a project be established to urgently map and specify risk levels for all existing leases in the southern coalfield, that is subject to periodic review, community input and capable of adapting preventative measures to unpredicted or unintended impacts.

It is inappropriate (DECC Recommendation 4) that longwall mining proponents identify high value water dependent ecosystems and natural features within a mining lease. Identification methods by different mining companies would be inconsistent and would not have primacy over resource extraction. DECC (along with the SCA) has the experience, consistency and ecological data to be best placed to carry out such an assessment.

Preliminary mine planning must involve identifying natural features where impacts must be prevented. The threshold between high risk and medium risk (using the DECC Ecological Risk-Based Decision-Making Model) should be clearly identified and not open to case-by-case interpretation.

The following should be rated as high value water dependent ecosystems (HVWDE):

- Upland swamps;
- 2nd order streams and above;
- River gorges;
- Threatened species habitat or endangered ecological communities (EECs);
- Rock bars;
- Pools.

The TEC considers the following must be risk-rated within the prevention category:

- Any damage to swamps;
- Riverbed cracking and/or draining in second order streams and above;
- Cliff falls in river gorges;
- Damage to near-surface aquifers and the lowering of near-surface groundwater levels;
- Significant Aboriginal sites as identified by Aboriginal groups and in collaboration with DECC.

Also, urgent independent research into near-surface groundwater distribution and that of deeper aquifers must be undertaken. Adaptive and preventative measures should be adopted within a set timeframe should these investigations conclude that long-term or permanent damage is occurring.

Thresholds and feature identification should be negotiated with community groups. Thresholds for threatened species and EECs must be established.

Part 3A and a regulatory instrument should adopt the following measures as preventative thresholds:

- No mining under DECC mapped significant swamp clusters and mining not to come within (buffer: 1000m) of upland or hanging swamps.
- No mining within (buffer: 1000m) of third order streams and above.
- No mining within (smaller buffer) of second order streams.
- No mining within (buffer: 1000m) of cliffs and river gorges.
- Adaptive measures to prevent damage to underground aquifers to be introduced by 2009.

Environment groups should meet regularly with agencies as this model is developed.

ADAPTIVE MANAGEMENT & CONTINUOUS IMPROVEMENT

The DPI has a well-documented history of being unable to respond appropriately in cases where significant damage is occurring, e.g. the Waratah Rivulet and Upper Cataract River. TEC believes that the current SMP process should be absorbed by the DoP into the new regulatory process

to reflect the new approach to thresholds and thus removing the conflict of interest held by the DPI in terms of regulating approvals and collecting royalties.

Consent conditions in mining approvals should contain specific thresholds that trigger regulated responses, including the power to stop mining plus increased bounties and penalties. In addition, the power of DECC and the SCA, in their roles on the IAC, must be adjusted so that these agencies may place binding conditions on SAP approvals.

DECC have recommended that, "Adaptive management and continuous improvement - for longwall mining applications under Part 3A, DoP support the inclusion of consent conditions that require adaptive management of subsidence impacts through use of monitoring data to improve management practices".

While the concept of adaptive management may be attractive to some, it is superficial in the face of serious problems. We have serious reservations as to how practically it may be applied, given the impracticalities of halting a longwall machine once mining of a panel has commenced or changing the direction of longwall panels.

The industry has been at pains to point out the difficulty of altering mine plans and their need for certainty with BHPB describing the current regulatory framework as a "massive problem" that gives them only a "small bite at the cherry" and "no economic certainty". Certainty for the environment and the catchments will only come with mandatory constraints enforced in HVWDE. Certainty for the industry will come with knowing where it can and cannot mine. It would be unacceptable for industry to gain certainty for the long term, which at the same time embeds inappropriate environment protection for the long term. Prevention measures should be regulated to have first call on mining design.

A review of impacts on HVWDE or areas risk-rated within the prevention category by previous panels should also be conducted by DECC alongside all new SAP applications and binding recommendations made.

Detailed SAPs should be conducted at no more than 5-year intervals taking advantage of detailed field surveys.

CUMULATIVE IMPACT ASSESSMENT

Mapping and monitoring of existing damage and 'remediation' works in catchments is necessary to establish cumulative impacts of additional longwall panels in a water source.

Identification of existing irreparable damage, e.g. loss of aquifers, swamps and cliff lines is needed to provide accurate base line data for making adequate planning decisions.

Identification of accountability for past damage, success or otherwise of remediation work (if any) and financial responsibility for management of past environmental damage is needed to improve understanding and long-term costs of the cumulative impacts of longwall mining.

MONITORING & REPORTING

The effectiveness of predictive capabilities must be measured in terms of impacts, as well as subsidence. Given the questions that have been raised by the SCA regarding the effectiveness and reliability of proponent conducted monitoring programs, uniform standards must be regulated and monitoring results independently reviewed.

If unintended or unpredicted impacts are occurring, certain threshold levels of impacts should be established to trigger management actions that include stopping mining in areas that have been rated as HVWDE and where prevention is mandatory.

REMEDIATION

While it is appropriate that mining companies repair any damage they have caused through unintended or unpredicted impacts, it is also known that remediation is an inexact science and its effectiveness (both short and long-term) is unknown. We also note that the SCA has described remediation as an additional impact of longwall mining in itself.

TEC made four recommendations in regard to remediation (*ToR 2c*) in our initial submission to the panel. These should be adopted in any new regulatory instrument.

METHANE CAPTURE

We support capture of methane as a power source to prevent its release into the atmosphere; we do not support methane flaring which converts it into CO₂ (and which is being withdrawn as an accredited carbon offset by the AGO).

RESEARCH

DECC has proposed an industry funded research project to be overseen by the Interagency Technical Committee and mining industry representatives. There is a need for community input into what is researched and to avoid industry influence.

ENVIRONMENTAL ASSESSMENT IMPROVEMENT

In our initial submission, TEC made a number of comments addressing the need to apply costs to the damage longwall mining impacts upon aquatic ecosystems and water resources. These costs need to be identified and standardised, along with fines and bonds that appropriately reflect the values put at risk as a result of mining.

INDIGENOUS HERITAGE

TEC supports a regulatory regime that ensures the prevention of damage to significant Aboriginal sites as identified by the relevant Aboriginal bodies. We note that the SAP process has been criticised by indigenous bodies, such as NIAC, as mine plans have predicted impacts to heritage sites, while failing to protect them.