



RESPONSE TO THE THIRLMERE LAKES INQUIRY DRAFT REPORT

Rivers SOS is disappointed with both the Draft Report of the Thirlmere Lakes Inquiry committee and with its procedures.

We must explain to you why we feel so strongly about this issue. Some on the Rivers SOS committee and a number of supporters have frequented the Lakes for decades and found their loss a tragedy. Meanwhile along with many others we have been monitoring the Lakes regularly.

Rivers SOS has called for an inquiry into the Lakes since 2010, and we had amassed several hundred signatures on a petition towards this when the inquiry was finally announced in October 2011. Other groups such as the NSW Nature Conservation Council and Wollondilly Council also called for an inquiry, and the Australian branch of the International Union for the Conservation of Nature has monitored the situation since 2011, as the Lakes are in the World Heritage- listed Greater Blue Mountains area.

We suspect that mining plays a larger part in the water loss than is admitted in your report.

In your report you do on occasion imply that mining has some bearing on the water loss, however your Draft Report fails to analyse or address this possibility even though it is mentioned, almost in passing.

Please understand that the requests which follow stem from our genuine grief over the loss of the lakes and our disappointment that the impact of mining, however quantified, is not addressed in ways that will inform future policy.

1. ISSUES WITH INQUIRY PROCEDURES

The whole conduct of this Inquiry has been marked by a series of unfortunate, unnecessary and mismanaged incidents that have not instilled much confidence in the Inquiry process in the local community who called for the Inquiry in the first place.

a) Make-up of the committee

Our major concern is with the conflict of interest in evidence with the appointment of Dr Wendy McLean, a senior employee of mining consultancy Parsons Brinkerhoff (PB). This company is not named in her CV on the Inquiry website. PB has Xstrata, owner of Tahmoor Colliery, as a client, plus most other large mining corporations. The work that Dr McLean and others in PB carry out for the mining companies is, to judge by their recent work at Camden, Broke, Gloucester and Wyong, invariably favourable to mining interests. Her appointment should have been avoided at all costs.

Conflict of interest, as is widely known, does not necessarily involve pecuniary matters, but - as in this case - may involve the potential to exploit a professional position in some way for personal or corporate benefit. Her participation in the Inquiry certainly has the potential to benefit PB and its client Xstrata. But whether a conflict of interest is actual or perceived, it appears that individual interests could improperly influence performance of duties. The perception is to be avoided, because public confidence in the integrity of the

Inquiry is vital. Dr McLean should have resigned from the Inquiry, especially after this problem was raised by Rivers SOS at the Tahmoor public hearing. At this point we lost much of our confidence in the Inquiry process.

b) Community member inclusion and selection

A community representative on the committee was promised in a letter from Min. Parker to Rivers SOS dated 10.10.11. However, when the Inquiry was announced on 25.10.11, a community rep. was not included. A further letter to the Minister on 13.11.11 complained about this as well as the exclusion of Prof. Pells from the committee. A community rep. was finally appointed in early 2012 but the process of selection for this member remains a mystery as there was no public call for expressions of interest and no public announcement of his appointment. Since then, despite huge public interest in the Inquiry, he has remained extremely low-key and was absent overseas for an extended period leaving Dr Riley to front up alone to the Council's Community Forum on the Lakes in May.

c) Exclusion of Prof. Pells from the committee

Rivers SOS was concerned that the scientist with most experience and recent research on the water loss was excluded from the Inquiry. We had not commissioned Pells, as incorrectly stated in the letter from Min. Parker of 10.10.11, nor was he paid by any other body. His work, with his son Steven, has been truly independent. However, like a number of other locals, some Rivers SOS members have given him help in researching the history of the Lakes and we were in a position to know that he is committed to unbiased scientific research and is in no way partisan.

We lobbied hard for him to be included and he was finally asked to apply for inclusion on the committee, then told he was not to be included for reasons which did not make sense.

d) Poor advertising

Advertising in the local media has been generally inadequate, with reliance on media releases or public notices but not both at any one time. Media releases may or may not be picked up by local media and public notices are often not very visible. There are 3 local papers across the region and all have not been contacted for each stage of the Inquiry. Consequently, public awareness of the progress of the Inquiry has been poor.

e) Website issues

The Inquiry website was supposed to be the place where the progress of the Inquiry could be followed. Failure to update it regularly has meant it has not been very useful at all. All submissions were to be available on the website but, despite the original submissions being due by Jan. 20, no submissions appeared on the website until mid-June, just before the Draft Report came out, ie. almost 6 months later.

f) Hearings

The public hearings on March 30-31 were arranged so that some parties could present in private. The fact that Xstrata chose to do so, thereby avoiding questioning from the public, did not go down well with locals. Xstrata's submission to the hearing did not go up on the website until mid-June along with all the others.

g) Emails

During the hearing at Tahmoor Dr Riley suggested more than once that any further information that people had could be emailed to the committee via the Inquiry email. Subsequently, two emails were sent, one of which included a piece of information re the site of the majority of the current water make in the mine, that we considered warranted special and urgent investigation. On questioning the committee about this at the Thirlmere public meeting it appeared that these emails had never reached the committee. This leads us to wonder how many other important emails were also not passed on.

h) Poor showing at the Council Community Forum

Wollondilly Shire Council had organised a Community Forum on the Lakes and set a date (May 22) when Dr Riley assured them that the Draft Report would be available. However, on the night, Dr Riley produced the Report but said he could not reveal its contents as it had not yet been approved by the Government. The many local people who had turned up were angry and disappointed about this. Dr Riley's evasive answers to questions that night also did not instil any confidence in the audience that the Inquiry had adequately investigated issues to do with mining.

i) Release of the Draft Report

The release and then withdrawal of the Draft Report was yet another laughable example of the often shambolic way this Inquiry has proceeded. It was released late on Tues. 26/6 but then removed from the website overnight. It wasn't re-released until Thurs. 28/6 after the Minister had made a statement via a media release. We did not receive notification of its reinstatement on the website until Thursday afternoon.

Consequently it was asked by Rivers SOS at the Thirlmere meeting that the exhibition period be extended to make it a full 3 weeks as promised- ie. to Friday July 20 – to make up for this unfortunate glitch.

2. FAILURE TO THOROUGHLY INVESTIGATE POSSIBLE MINING IMPACTS

The whole impetus for this Inquiry came from community concerns that mining might have impacted the Lakes water levels. The call for an Inquiry was led Wollondilly Shire Council in response to community concern and by Rivers SOS, whose charter is to protect such water resources from the impacts of mining. This call was taken up by the Opposition and became a pre-election promise of the Liberal candidate, now Member for Wollondilly, Jai Rowell before the state election in March 2011.

We were pleased to have the Inquiry finally announced in October 2011 but our concerns about its direction began with the Terms of Reference where investigation of possible mining impacts is not even mentioned.

What the community who called for this Inquiry wanted from the process, was a thorough investigation of the likelihood of the mine impacting lake levels. Given the widely-held suspicion that the mine was the culprit, it was expected that the Inquiry would concentrate on proving or disproving that theory. From what we read in the Draft Report, however, it is obvious that there has been very little concentration on this fundamental aspect.

The Draft Report confirms our fears in that it seems that a thorough investigation of possible mining impacts has not been considered a priority. Despite our efforts to seek answers from the committee to what seems to be incriminating data they have chosen to ignore these clues to possible mining impacts and state on p. 232 -

It appears that it is not possible to judge exactly where the water discharge from the mine is coming from within the mine as the committee was not made aware of any detailed quantitative records of within-mine water transfers.

If the committee was "not made aware of" records which would shed light on the area of greatest water make in the mine then they needed to go looking. The obvious thing would be to actually go down the mine and/or maybe talk to some miners as we did. It is from a current, serving Tahmoor miner that we got the information which we attempted to pass on to the committee via email, that the point in the workings where the greatest water make is still occurring is in 500 panel. This is in the area closest to the Lakes. This information was brought up at the Thirlmere public meeting but was allowed to be flicked to the Xstrata personnel present who of course dismissed its accuracy and relevance.

Another compelling piece of data that has not been satisfactorily investigated is the mine's water make graph which appears, labelled incorrectly, on p.229 of the Draft Report. This graph first appeared in the NOW Report with very little meaningful comment. It was brought up at the public hearing in March, where it was pointed out that it shows a huge increase in water make in the mine at about the time the longwalls went near the Lakes. In the Draft Report it is also reproduced but not discussed in any detail, with the pre-2009 data being dismissed as unreliable.

It was also brought up at the Thirlmere public meeting, with a wholly unconvincing response from both the committee and Xstrata about the error factor in the data, given that it was based on estimations derived from pump capacities and pumping duration. It is our view that, even though there may be an error factor, there is still obviously a suspiciously large increase in mine water make coinciding with the mining closest to the Lakes.

It was said by Dr Riley during discussion on this topic at the meeting that it would be desirable to put monitors on water transfer systems in the mine. **We think this should be one of the report's recommendations.**

So it is disheartening to see stated in the Draft Report – *“Groundwater movement in the Hawkesbury Sandstone appears to be the key to understanding the groundwater losses from Thirlmere Lakes.”* (p.233) and that, accordingly, they have chosen to take this direction rather than to thoroughly investigate possible mining impacts.

Not only does there seem to have been a distinct lack of effort or will to investigate possible mining impacts but there also seems to have been a corresponding concentration of effort to disregard or counter the research of Prof. Pells. Philip and Steven Pells have been working independently on the issue of the Lakes' decline now for over two years. They do not have any particular axe to grind and are not working for any other interest group. They are scientists with particular expertise in this area who think that there might be a problem relating to the mine and who are carrying out exhaustive research at their own expense to test their hypotheses. The results of their work have been available to the public via their website. They have also attempted to share all their data with the Committee.

It is therefore extremely disappointing that the Draft Report appear not to have taken into account all the updated data given to the committee and continues to say, for instance, that Pells has over-estimated the volume of the Lakes.

Also disappointing is that the Draft report does not discuss the fundamental hypothesis that Pells posits - that the possible depressurisation of the deep aquifer due to mine de-watering and degassing, which combined with his theory about the permeability of the Bald Hill Claystone, could have contributed to the loss of water in the Lakes. We note that this is not some “way out” theory being put forward by Pells alone. It has also been suggested by other consultants (Worley Parsons) as a possibility elsewhere in the Southern Coalfield, in regard to CSG expansion by AGL of the Camden gasfield.

That the Draft Report relies heavily on two Xstrata-commissioned reports to discredit the Pells research is also of concern. These two reports, which only came to light in mid-June along with all the other submissions on the website, **need to be clearly referenced as being funded by Xstrata.** In the absence of any independent studies being carried out by the committee itself, we do not find it instills much confidence in the independence of the Inquiry to have industry-funded reports being used to refute the validity of research done by truly independent scientists.

In fact, without an independent hydrological study and groundwater assessment being done, any conclusions about the impacts of mining cannot be reached and shouldn't be made.

The Pellises soldiered on with their research despite being hampered by a lack of access to key information from Xstrata. In a formal submission, they asked the committee to request this information. Again, it seems to us an example of how the committee chose to avoid close scrutiny of such information relating to the mine when it was revealed at the public meeting in July that this request had not been acted on.

3. POSITIVE ASPECTS OF THE DRAFT REPORT

The section on Biodiversity is most useful and the recommendations in this section are commendable. It rightly points out the serious dearth of knowledge that exists about the biological and ecological features of the Lakes, given their World Heritage status.

It also highlights the inadequacy of the 15 year old Plan of Management and the need for an updated version to *“address the concerns over the drying of the lakes and possible influence of longwall coal mining on the biodiversity and ecology of the Lakes”*. (p.192)

This disturbing state of affairs is not surprising and can probably be related to the serious under-resourcing of NPWS that has been the case for decades and seems likely to get worse with recent announcements from the Government.

It has been disappointing though, the OEH have not been more pro-active with this issue. It was apparent that they were prepared to just dismiss the problem with the Lakes' water levels as just “the drought” right up until the Inquiry was set up. They continued to promote the Lakes on their website and in brochures as a place to visit for canoeing, swimming etc. until the Inquiry began, despite the lack of water. We were witness to a carload of Japanese tourists who pulled up at L. Werri Berri in late 2010, got out of their car and stared in bewilderment at the sad vista that confronted them

To this day, despite our suggestion of the need for some explanatory signage to be erected, there is still nothing to explain to the unsuspecting tourist (or local) what is going on with the Lakes or even that there is an Inquiry underway.

4. MANAGEMENT OF THE LAKES

In the historic section of your inquiry, more focus should be on the government agencies which manage the Lakes. There are demonstrable failures in management. Even after the Lakes were visibly drying out, from 2009, no monitoring was undertaken. This means that there is no baseline data.

The National Parks and Wildlife Service and the Sydney Catchment Authority are both responsible for management and oversight.

In what follows we give some examples of the problem:

The NPWS with its rangers is the most "hands on" and yet has failed to update its 1997 Plan of Management for the Lakes. As the Lakes dried out and concerns were expressed, the NPWS failed to set up a monitoring programme. Condition monitoring is a fundamental requirement for any conservation programme.

Although the Lakes are within the SCA's Special Areas (Schedule 2) within the Warragamba Catchment, the SCA has been equally slow to react to the loss of the Lakes, though they claim on their web site that they "jointly manage the Special Areas" with the NPWS. Their web site emphasises the importance of the Special Areas for providing 'safe clean waterprotecting bushland and protecting biodiversity and threatened species."

Between 2002 and 2007 they undertook a study of threatened species in the Warragamba catchment, together with the Department of Environment and Climate Change, which listed priorities for the conservation of threatened fauna. But they were missing in action when Rivers SOS raised concerns over the localised extinction of two aquatic species in the drying Lakes: a rare freshwater sponge (*radiospongilla sceptroides*), and a rare water lily (*brasenia scherberi*) found only in the Warragamba catchment.

A world expert in freshwater sponges, Professor Nigel Forteach from Tasmania, emailed us to commiserate: "We are losing aquatic environment species in Australia at the most alarming rate" (7.8.11). We saw no concern from the SCA as the lakes dried. Others then looked for these species but could find no trace. The possibility of re-location came and went.

It should be revealed that not only have these two agencies been remiss, but that both actually obstructed Professor Pells in his efforts to undertake research. First, the SCA refused his application for permission to enter their locked gate with a vehicle carrying some heavy monitoring equipment. He wanted to complete his research by a certain date, to accord with his schedule of work elsewhere. The applicant had to give one months notice for the SCA to reply. Pells applied on 5 September for access for only two days, on 19/20 September. He was informed in writing by one Angela Langdon, from SCA management, that he had not provided "sufficient detail" about his research in his application. Not only was permission refused but he was informed by Ms Landon that he would have to wait for another full month after he had provided the extra details. Thus it would have been in mid-October before he learnt the outcome, too late for his purpose.

Here is a well known mining expert, the recipient of a Premier's award in the previous year for work in this area for BHP Billiton, seeking minimal co-operation for research, paid for by himself, on problems in an SCA Special Area. Not only is he denied help but he is being hindered in a very calculated way. This, from the agency which waxes lyrical about its responsibility for biodiversity, water quality, etc., while observing the Lakes dry out year after year and doing nothing.

Similarly, the NPWS refused Pells's request to drill near the outlet of the dry Lake Nerrigorang to prove or disprove his hypothesis about the presence or otherwise of the Bald Hill Claystone under the lake. When Rivers SOS queried the NPWS refusal we were told that this "needs to go through an assessment process to ensure it does not impact upon the values of the area." This was ironic considering the impacts of underground mining in the area, and considering the fact that the NSW Office of Water had been given permission to drill in several spots only a year before. The letter continued: "NPWS are currently of the view that we should await the outcome of the Inquiry before determining what further investigations are required." (18.6.12) Hopefully they will see the need for this after the Inquiry and facilitate this research.

As part of the recent history of research into the problems in the Lakes we think that these issues and problems should be highlighted. This might assist these agencies in fulfilling their responsibilities.

5. WORLD HERITAGE LISTING OF THE GREATER BLUE MOUNTAINS AREA

The Terms of Reference ask you to inquire into the history of the lakes, and we feel that proper weight should have been given to the listing of their area as World Heritage, in 2000. This has consequences, as the World Heritage Convention makes certain demands on signatory nations such as Australia, which should be incorporated into the Lakes' Plan of Management. Signatories are obliged, under Article 5, to "develop scientific and technical studies to avert dangers." The recommendations of the Draft Report should explicitly correlate your own research recommendations with this obligation.

Failure to protect world heritage sites, e.g. with adequate staffing and research may result in de-listing. The Australian Committee of the International Union for the Conservation of Nature resolved at its 2011 AGM

to monitor the lakes and the mining issues, and to set up a committee to examine the impacts of mining in world heritage areas, and to write to the NSW government to call for appropriate protection. The committee will report back to UNESCO in Geneva.

The Environment Protection and Biodiversity Conservation Act (1999) provides for protection of World Heritage areas, linking to Australia's obligations under the Convention. Any action which may impact on World Heritage areas may only be undertaken if approved by the Federal Environment Minister. Furthermore, under this Act the onus is on the proponent to ensure that there is no significant impact. The failure to address possible impacts of mining under this Act should rate a mention in your final report. We think that the Minister and her Department should be alerted by you to information having international implications, and potential embarrassment for Australia. The listing of the Lakes, which arguably were the most beautiful asset in this World Heritage area, is surely a significant milestone in their history.

6. IN CONCLUSION

We ask that the following be included in the final report:

1) Recommendations.

Please add some broader recommendations which may assist decision-making in future. Public inquiries involve a significant investment of public resources and an inquiry which is too narrowly focused is an opportunity wasted. Though your terms of reference were narrow we ask you nevertheless to include some broader policy guidelines. The need for the protection of highly significant natural features is in play. Your inquiry takes place in this specific context, not in a policy vacuum. You say that you are not able to "disentangle" mining factors from the other causes of water loss, but however minimal this factor is, it remains a factor which - unlike drought - is manmade and can and should be managed better in future decisions. Any such recommendations could be included as an Addendum, or the terms of reference nos. 4 or 6 could be enlarged upon. We would like to see three items mentioned:-

a) **The Precautionary Principle.**

This accords with best practice environmental standards and is recognised in most environmental statutes, COAG processes and the Land & Environment Court. We are advised by the Environmental Defenders Office that although your inquiry is not a statutory body you are a "scientific advisory body" and therefore any advice should uphold the precautionary principle explicitly. This is especially relevant in cases like yours, as the precautionary principle is triggered by "scientific uncertainty" (for example, see the *Telstra vs Hornsby Shire Council (2006)* judgement in the L & E Court).

b) **Reverse Onus of Proof**

It would be helpful if you could recommend the upholding of the recommendation for reverse onus of proof in the *Southern Coalfield Inquiry Report (2008)*. In essence this recommends that the burden of proving that threat does not exist reverts to the proponent. This would certainly be helpful in assessing mine plans in future. It seems wasteful to hold inquiries concerning mining without referring to recommendations made by past inquiries, especially one which examined the same area in recent times, and in great detail.

c) **Buffer Zone around River Systems and Water Resources**

Rivers SOS calls for a 1 kilometre buffer zone to protect water resources from mining operations. Even if you believe that longwall mining had only a small impact on the Lakes, nevertheless you could attempt to

recommend some such buffer zone for future operations in NSW. Surely it is worth avoiding even the smallest impact. Our call for a 1 kilometre buffer is based on a considerable body of research which we would be happy to forward.

d) In the recommendations on Hydrology there should be one which requires data collection of the water make in the mine perhaps via monitoring of water transfer systems as already suggested by Dr Riley.

e) There should be a recommendation that the research of Prof. Pells be thoroughly analysed and assessed and consideration be given to further work which might be undertaken to extend this research. This is suggested in the light of the fact that this was not done in the course of this Inquiry.

2) Inclusion of Professor Pells' data corrections

We understand that Professor Pells sent you corrections of errors in data in his report, but that your report did not take these corrections into account, instead continuing to work with the erroneous data. We understand that the correction was quite significant and we ask this to be included in the final report along with appropriate analysis.

3) More weight to be given to Pells' Modelling

We do not concur with your dismissal of Pells' modelling. While we agree that modelling cannot be 100% accurate, as you remark on p. 151, it is the best approach available to date. His conclusion, that the loss of water was not caused by drought alone, should be taken more seriously. You should include and discuss his conclusions, even though apparently you disagree. It is surely unscientific to reject out of hand a careful study by a respected mining expert. To suppress his conclusions because you do not concur is not acceptable. As an advisory body it is appropriate and helpful to offer opposing views, especially as all of those involved agree that more groundwater research is essential before any certainties can be reached. It is not appropriate to uphold conclusions arrived at in Gilbert's modelling, i.e. drought is the cause of drying, while dismissing Pells. The reliance on Gilbert is inconsistent with your opinion on modelling in general.

4) Research commissioned by Xstrata

We ask you to clearly reference the fact that the studies quoted throughout your draft, by Gilbert and Associates and Heritage Computing, were commissioned and paid for by Xstrata. This should have been included when these studies were listed in the references/bibliography. It would be even better if you could state this at the outset as well, making it clear that this work commenced after the Inquiry was announced in October 2011 and finished conveniently before your draft report was written this year.

By the same token, we ask you to delete comments in the draft claiming that you are an independent body, e.g. as in the statement that you have "no partisan views on what was influencing lake levels" (p.36). As your report relies heavily on studies provided by Xstrata, with a committee member working for a mining consultancy, claims of independence and non-partisanship are not convincing.

5) Comments on mining must be analysed coherently

Scattered comments on mine impacts throughout the draft must be linked and made explicit. Your analysis of the impacts on groundwater from the de-watering of the colliery is lacking. You mention that groundwater to the east of the lakes has been affected "possibly" through mine water extraction (p. 239), but you fail to enlarge on this, or give detailed information. Again, you mention that "partial depressurisation ... has occurred due to longwall mining" (p. 232) but in general you do not examine

depressurisation adequately, and you fail to make clear the links between these phenomena and the loss of water in the lakes.

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20.7.12