

Address by Hugh Price, Chair Namoi Community Network

**TO PLANNING ASSESSMENT COMMISSION
on
PROPOSED SHENHUA WATERMARK COAL PROJECT,
11 DECEMBER 2014**

Madam Chair (Ms Briggs), and fellow Commissioners' Woodward and Murrell,

Thank you for this 2nd opportunity to speak to the PAC on the Shenhua Coal Project.

The credentials of Namoi Community Network (NCN) which I represent and my background are listed in our earlier submissions to the PAC on this Project. They are attached with this paper.

I and Namoi Community Network continue to strongly oppose this Development

On 21st November Minister Goward announced in a media release a suite of improvements..... 'The reforms include: Engaging better with communities affected by mining proposal by providing clearer information and more opportunities for community questions to be answered'

Madam Chair,

Due Process

This process of development application by Shenhua has been substantially assisted by the Dept of Planning providing significant assistance to facilitate its approval, yet there has been little assistance to the community to ask questions. Where is the evidence of comparable assistance to those opposed to this development? Surely, it is just as legitimate to oppose the project, as it is promote it!

I asked at the last PAC meeting in this room for release of the **Final Peer Review** by GeoScience Australia of the **Namoi Catchment Water Study** published by Schlumberger Water Services in July 2012. I have received no response from the PAC, and none from the NSW Government other than a verbal response by an Officer of the Dept of Trade and Investment on October 1st last in a meeting at Dept of Planning, advising me 'it was for internal use only, and will not be published'. Strange that all other progress reviews of the Study by GeoScience Australia were published!

At every turn this Government's departments seem intent on blocking honest transparency of process. On November 5th this year (5 weeks ago) in a meeting with Minister Goward in her office we were told Dr Frans Kalf had been asked to complete an independent review of the work by Dr Colin Mackie, and Dr Kalf's report would be completed shortly and there may be a 2nd PAC for determination. In fact, the Department were already in possession of his report dated 23rd October 2014 and chose not to advise us of that. One week later the public were advised of this PAC.

As long as many find good reason why this project should not be allowed to proceed, the Department of Planning and the Department of Trade and Investment appear intent on

finding reason to advance it. I repeat why has there been no comparable assistant for those opposed to this development?

Even the Federal Minister for Agriculture is opposed to it as was seen on ABC tv on Monday night last, but yet appears politically impotent to stop it.

Science and Water

Agriculture is not an exact Science and final determination of this Project by constant reviews of the water modelling employed is extremely dangerous and could be consider irresponsible. Sufficient evidence illustrates the cumulative risks are immense and cannot be adequately quantified to make a responsible decision in support of the project.

The most profound impacts of this mine will be on water:

1. Once a mine has started it creates a de-pressurisation ‘pulse’ and it CAN NOT be clawed back or mitigated, the ‘pulse’ just simply works its way through the strata layers over time. The key is to set up suitable monitoring sites so that you can continuously measure the de-pressurisation impact as the mine continues and check that back against the model to see if its predictions are accurate. Unfortunately if you find out that the monitoring results of the actual mine impacts are different to the models it is too late, you will not be able to mitigate the impact. You will only be able to ask for compensation.
2. Essentially the high risk areas are where the Shenhua coal mining occurs in close proximity to the alluvium aquifers which are in Zone 7. The level of Interconnectivity is still not known outside, under, and around these aquifers, at best it has been simulated. From NCWS: Executive Summary, page v., Table E2. Risks to groundwater levels from mining: Zone 7 – High. Zone 11 – High. Gunnedah Basin – High.
3. Surface water will be impacted with less run-off due to reduced catchment areas and less water returned to the system in times of major rain events. However, as has previously been referred to by other speakers, the plans do not cater for all water run-off in major rain events and this contaminated mine water will be returned to the system. The proponent has admitted that sediment dams will overflow into the creeks that feed the Mooki River. There will be a 33% increase in salinity in Watermark Gully because of “overflows from the project sediment basins during high rainfall events”¹
4. The Upper Namoi Alluvial Aquifer is one of the most intensively developed groundwater resources in New South Wales. The Watermark mine will drawdown water from three zones of this over-allocated water resource, which supports irrigated agriculture on the rich and productive food-growing soils of the Liverpool Plains.

¹ Department of Planning and Environment. Watermark Coal Project – Assessment Report May 2014.

5. The mine is expected to take up to 103ML per year from the Upper Namoi Alluvium, but Shenhua do not currently hold sufficient entitlements in the three affected zones of the Upper Namoi Alluvium to take this water, or to run the mine.
6. The Independent Expert Scientific Committee said, “The proposed project is likely to result in salinity impacts from overflow of water storages, seepage from the backfilled and proposed open mine voids, connectivity between the alluvium and Permian strata and the removal of woodland from the proposed project site.”
7. The Committee criticised the EIS for the project for not adequately addressing the cumulative reduction in flow in the Namoi River that will occur if both mines go ahead, equivalent to about half the current surface water extraction from the regulated Namoi River below Keepit Dam.²
8. Cumulative drawdown impacts of the two mines in the Upper Namoi Alluvium Zone 7 are predicted to exceed the 2 metre “minimum impact” of the Aquifer Interference Policy and cumulative drawdown in parts of the Gunnedah water management area will exceed 10 metres.
9. Shenhua appears to have dramatically underestimated the amount of water it will require to run the mine and does not currently hold entitlements even for the volume of water they expect to need. The proponent has not been able to clarify whether they will source this water from Zones 3, 7 or 8 of the Upper Namoi Alluvium, or from the Mooki River. This “make-up” water is nearly two-thirds the volume of the rest of the estimated water demand. The Department of Planning noted that “the Mooki River is likely to be dry in times when make-up water is required.”³
10. The proponent is not proposing to restore the landscape as it is now after mining ceases, but to leave behind a 100ha final void. This void will draw groundwater for two millennia after mining ceases, reaching salt levels equivalent to seawater after 400 years. The IESC clearly stated that backfilling of voids represents best-practice, yet this has not been required of this mine.

This mine should not be given approval on the grounds that it poses an unacceptable risk to water, namely the Upper Namoi Alluvial Aquifer and the Mooki River.

As we entered the 21st century 14 years ago, we were told by our political leaders’ water and food security would become the critical and significant issues of this century.

Recognition **first** of our water and our rare vertosol soils (as confirmed by Rick Young, ex DPI yesterday) for food production security is paramount for this State and the food exporting opportunities now existing for this Country. Yes, particularly to China – they are already short of food.

² Independent Expert Scientific Committee. Advice to the decision-maker Watermark coal mine. 27 May 2013.

³ Department of Planning and Environment. Watermark Coal Project – Assessment Report May 2014.

The evidence presented yesterday and earlier today refutes the claims of the Department of Planning and Environment (*– Planning and Environment!!*) that there will be no damage, or that its effects can be mitigated. They are wrong. This proposed mine and the proposed adjacent mine of BHP Carooona will cause irreparable damage to the underground aquifers of the Liverpool Plains, and the agricultural production capabilities of this region.

Authorising the exporting of more coal to China is wrong, maintaining capacity to export food to China would be right.

In the Public interest, in the long term interests of the people of Australia and this State you should not recommend this project's approval, but reject it.

This completes my address.

Thank you.

Address by Hugh Price, Chair Namoi Community Network

**TO PLANNING ASSESSMENT COMMISSION
on
PROPOSED SHENHUA WATERMARK COAL PROJECT,
26 JUNE 2014**

Madam Chair (Ms Kibble), and fellow Commissioners' Mr Payne and Mr Gilligan,

Thank you for the opportunity to speak to you today.

I am Chairman of Namoi Community Network (NCN) which is an affiliated committee of Namoi Water. I am also former Chairman of the CSG Forum Steering Committee that hosted a successful Independent Coal Seam Gas Science and Law Forum at Parliament House in March this year. For 14 years I was Manager of the largest holding on the Liverpool Plains, some 22,000 hectares. I emigrated to this country 35 years ago, because of the attributes of the soils of the Liverpool Plains.

To quote Anthony Roberts; present NSW Minister for Natural Resources and Energy "when considering mining applications.....

.....we need strong science and honest communication....."

I will contend we don't have the first, and are very weak on the second!

And for what purpose?

- To support an increasingly outdated extractive industry for only short term financial gain (30years) and further contribute to increased & unacceptable carbon emissions on the Asian continent, but which will have a permanent and detrimental effect on our own ability meet the future opportunities to contribute to feeding an ever increasingly hungry world from soils unique in this country, and replicated in only a very few other areas of the globe.

Namoi Community Network (NCN) was established by the community in 2011 to ensure the Namoi Catchment Water Study (the Study).commissioned by NSW DTRIS (NSW Dept of Trade and Investment, Regional Infrastructure and Services) in 2010 was completed proficiently and within its Terms of Reference. The Study was to determine the potential effects of coal and CSG resource development activities on catchment water resources of the Namoi Valley.

The NCWS Study was completed and published by the Independent Experts SWS (Schlumberger Water Services) in July 2012, however the final Peer Review of the Study undertaken by GeoScience Australia remains in draft form and, apparently under Federal Ministerial Directive will not be released to the Public.

- **Why is this Review by this highly respected organisation not being published?**
- **What information deduced from the Study is so damaging to prevent the release of the Peer Review?**

I and my Committee continue to strongly oppose this Development. I respectfully refer you to NCN Submission made to the PAC in December 2013.

I wish to make comments on four topics:

Water Resources Impacts

Agricultural Impacts

Social Impacts

Due Process

1. Water Resources Impacts

The national significance of water to Australia cannot be over stated. The security of water resources and water quality are, and must remain, the prime concerns of this country. It became apparent as the NCWS Study concluded there will be significant irreversible detrimental impacts to the water resources of the Namoi Valley from extractive industries, such as the proposed Shenhua Watermark Project. E.g. broken aquifers, unacceptable water connectivity by intervention, artificial lowering of water tables in soil moisture for dryland farming and irrigation bores. The EIS for this project confirms direct damage will occur to aquifers immediately to the East of the Project. These impacts will significantly reduce the dryland and irrigation production capabilities of the unique soils adjacent to this project area.

As part of the Environmental Impact Assessment, the NSW Dept of Planning & Environment required a 'detailed' assessment of potential impacts on the quality and quantity of existing surface and ground water resources, including, inter alia, 'detailed modelling of potential groundwater impacts'.

- **Was detailed modelling done in accord with the Precautionary Principle?**
- **Has 'sufficient' surface water and groundwater baseline data been obtained, and if so, where is it?**

The Public do not have confidence in the hydrological analysis within Environmental Impact Assessment (EIS). Modelling conducted is considered inadequate and insufficient. With adequate baseline data being generally poor or insufficient, the stratigraphic knowledge for well-informed hydraulic processes is limited. And while legislation such as the aquifer interference guidelines in addressing the key groundwater science may be satisfactory, experience is that monitoring of compliance and implementation of the intended approval requirements will not occur because it is not independently audited.

- **How and where can the public find; robust, trusted independent scientific analysis?**

The greatest issue is that EIS process cannot adequately evaluate cumulative impacts across the groundwater system. Such ongoing evaluation must be conducted by independent

parties and paid for by Shenhua and should form part of the exploration terms, before this Project is allowed to proceed.

2. Agricultural Impacts.

Soils of the Liverpool Plains. The associated and adjacent areas of this proposed mine are one of the most favoured and reliable dryland farming areas of Australia. It has a worldwide renowned reputation for its reliable and highly productive fertile deep soils. These natural attributes are further and dramatically enhanced by high quantities of good quality water available from the underground aquifers by irrigation bores. The vertisol soils have extremely high CEC levels (Cation Exchange Capacity) >60 ppms, which, when wetted swell with high water holding capacity and regularly can store >200mms of water in a metre of soil depth. These soil characteristics are dependent on the shallow underground aquifers which ensure the synergies unique to the Liverpool Plains. The latitude of this region then allows a very diverse range of crops to be grown. Such is the natural resource which this Project will jeopardise.

- **Is it worth it?**

3. Social Impacts.

Approval of the Project may have some positive social impacts, in the form of continuing employment in the local community, but there will be significant negative social impacts arising from continuation of adverse impacts of noise and dust, visual impacts, and adverse impacts arising from a change in the composition of the Breeza community. Those impacts must be taken into account in the consideration of all the relevant factors in determining whether the Project should be approved.

The Project's impacts in terms of noise, dust and visual impacts and the adverse change in the composition of the community by the acquisition of noise and air quality affected properties, are likely to cause adverse social impacts on individuals, the Breeza community and the surrounding region. I give you the example of my own daughter and her husband leaving Aberdeen in the Hunter Valley for these same reasons. Impacts from the Shenhua Watermark mine would exacerbate the loss of sense of place, and materially and adversely change the sense of community of the residents of Breeza, and the surrounding countryside. This surely would be contrary to the public interest, and have a significant undesirable social impact.

4. Due Process

The assessment and approval 'playing field' heavily favours big business and big government, to the disadvantage of the general public.

The assessment system needs to acknowledge the disadvantages imposed on the general public, namely:

- **limited knowledge** of many of the complex technical issues compared to the knowledge of the company and government;
- **limited time** to make learned contributions/submissions compared to the company and government;
- **limited financial resources** compared to the company and government;
- **limited legal resources** compared to the company and government;
- **limited political influence** compared to the company and government;

The PAC needs to bring greater transparent equality to the existing system that would allow the public to fully engage, be heard and for the decision making process to be seen to be transparent and evidenced-based with discretion eliminated from the decision making framework.

It is very difficult to believe this exists with this project, when already Shenhua have paid the NSW Government a reputed \$400,000,000.

Role of the PAC: the public anxiously seeks a body it can trust on decisions regarding major developments. Someone they believe will give them; the small players, a fair go. The public would love it to be you; just a much stronger, better resourced and more independent you!

The community demands that someone in authority will give just as much weight to their case as to that of the company or government. At the moment the perception is, considering the Government processes overall, there is a bias in favour of the developer. The community wants more transparency and greater accountability, and a Dept of Planning & Environment that shows itself an even handed planning agency, not as an advocate for the proponent.

This completes my address.

Thank you.

Namoi Community Network

Shenhua Watermark Coal Mine at Breeza NSW SSD – 4975, Watermark Coal Project

Submission by Namoi Community Network

Privacy Statement: We have read the Department's Privacy Statement and agree to the Department using our submission in the ways it describes. We understand this includes full publication on the Department's website of our submission, any attachments, and possible supply to third parties such as state agencies, local government and the proponent. **YES.**

Disclosure of reportable donations: This organisation has not made any reportable political donations. **NO.**

Namoi Community Network (NCN) is an affiliated committee under Namoi Water. NCN was established by the community in 2011 to ensure the Namoi Catchment Water Study (the Study) commissioned by NSW DTRIS in 2010 was completed proficiently and within its terms of reference. Although the Study was completed and published in July 2012, the committee has continued to meet to pursue its concerns. The national significance of water to Australia cannot be over stated. The security of water resources and water quality are the prime concerns of this organisation. It became apparent as the Study concluded there will be significant detrimental impacts to the water resources of the Namoi Valley from extractive industries.

Namoi Community Network is opposed to the Shenhua Watermark Coal Mine at Breeza NSW.

The Study did demonstrate extractive industries such as this proposed mine will adversely affect ground and surface water on the Liverpool and Breeza Plains. This proposed mine will have a significant detrimental impact on the water resources of this area, damage aquifers, and reduce the food production capabilities of the adjacent premium black soils, with their world significant physical qualities.

Objections and Impacts identified in EIS and Appendix Z Agricultural Impact Statement

Executive summary:

The summary implies there will be only minimal impact on the one of these nations' pristine agricultural regions, the Liverpool Plains. This is nonsense and demonstrates professional incompetence on the part of the authors! To employ dairy management consultants to prepare an Agricultural Impact Statement illustrates no appreciation of the agricultural significance of this region by the Shenhua.

No qualified consideration is made of the critical & essential importance clean quality water and clean air, in a clean atmosphere, play in ensuring the high efficiency with which photosynthesis presently occurs on the Liverpool Plains will continue; the same high efficiencies which can continue maximise the production capabilities of these premium soils.

Not all waters are the same. Appendix Z however suggests they are. That's simply not correct, poor water quality, contaminated with various undesirable minerals released from mining will adversely affect both water quality and the productive soils which adsorb them.

The atmosphere will be contaminated by coal mining, as is evidenced at every known open cut coal mine presently operating.

We do not accept that after 45 years the groundwater taken from the alluvial aquifer sources will be reversed and the alluvial groundwater replenished to its previous condition.

1. Which aquifers?
2. Do Shenhua really maintain that operating 900 metres from one alluvial formation will not have an adverse and reversible affect on the aquifer?
3. Which aquifers will be replenished?
4. How Aquifer replenishment will occur is not demonstrated in this EIS?
5. Do Shenhua deny there will be artificial connectivity between aquifers caused by the proposed open cut mining over the 30 years?
6. The 150 metre buffer area is an arbitrary figure not substantiated. Shenhua do not document the connectivity hydraulic values Kv and Kh within the alluvium affected. What are these valves for the adjacent areas to the mines, projected over the life of the mines?
7. Will that connectivity be reversed after 45 years?
8. How will it be reversed?
9. Will the water quality prior to mining be re-established after 45 years?
10. How will water quality be re-established?
11. What recourse does the NSW Government have to ensure if, and when, damage to aquifers occur, Shenhua are required to stop, and correct the damage to aquifers?

No reference is made to the findings of the Namoi Catchment Water Study.

12. Do Shenhua acknowledge that as a result of their activities ground water will be affected in alluvial Irrigation Zones 3, 7, and 8?
13. Do Shenhua deny that as a result of their activities the ground water will drop at least 5 metres in large areas of the Liverpool Plains?
14. Is the NSW Government going to allow this irreversible damage to the aquifers of the Namoi Catchment?
15. Surface water will be impacted by less run off due to reduced catchment areas, and water will be returned from the mining area to the system in times of major rain events. There are two adverse impacts here which are not adequately addressed in the EIS.

The AIS presumes a 'common state' in its appraisal of water uptake by agriculture over the period of the mine. This is not a realistic modelling criteria to use. Historically, agriculture is ever evolving and developing; ensuring soils and water resources are maintained and enhanced for future generations. This proposal concedes water resources will be adversely affected without identifying how this damage will be reversed.

Additional adverse impacts:

1. Dust and Air Quality – We do not accept the Dooley and Rossato (2010) prediction that there will be nil to minimal impact from dust on the productivity of plant growth. We also contend there will be detrimental and adverse impact on air quality. Such impact from open coal mining is evidenced in the Hunter Valley frequently. Reference our opening statement, on the present efficiency of photosynthesis for food production on the Liverpool Plains.
2. Koala - The Australian Koala Foundation (AKF) disputes the number of koalas located in the local government area and feel there are a lot less than stated. AKF are opposed to the translocation of the koalas from the Shenhua area.

3. Ecology - A total of 4,084 ha of vegetation will be removed progressively over the life of the project. This is a very large loss of vegetation and will not be compensated for by the offsite offset at Barraba. Ecological assets cannot simply be 'transported' somewhere else. That's a contradiction of nature!
4. Future Expansion – It is stated in the EIS that a final void will remain in the Western Mining Area. It will have a maximum depth of 80 metres below the natural ground surface. Will the NSW Government regulate that no further mining, either open cut or underground long wall mining will occur in the future?
5. Increased Train Movements - All towns and properties along the rail line will be impacted by additional noise and dust from increased coal train movements. Is the NSW Government intending to give a monopoly to the coal exporters using the rail line to Newcastle, at the cost of and prohibiting grain rail freight?
6. Noise – the proposed mine is located near the village of Breeza in Northern NSW which is a quiet rural area. Infrasound/low frequency noise (ILFN) produced by machinery is known to be a problem in these types of areas due to the lack of background noise. ILFN is known to cause cardiovascular disorders, psychological problems and stress. It is of great concern to the community that Shenhua is not completing any assessment on low frequency noise as stated in the EIS "Acoustics Impact Assessment 4.6 Low Frequency Noise - no separate assessment of low frequency noise levels is required".
7. Heritage - The project will destroy significant Aboriginal heritage sites. This is unacceptable.

If the Government approves this project, they are knowingly approving the detrimental impacts of this mine at the cost of the landholders and the community. Once the mine starts, you cannot stop or mitigate the impacts to the water resources, the system enters a new state and is changed.

signed

Hugh Price.
Chairman.

