Submission for Shenhua's EIS for the Watermark Project

NSW Government Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Director Mining and Industry Projects
Re: Watermark Coal Mine
App No.: SSD – 4975, Watermark Coal Project

Name: **Mrs Sue Cudmore**
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Disclose reportable donations: I have not made a reportable political donation.

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

I am a current member of the Caroona Coal Action Group and as such make reference to and recommend the submissions of:
Independent Review of the Environmental Impact Statement for the Watermark Coal Project prepared by Earth Systems, April 2013.
SoilFutures Consulting Pty Ltd – Review of Watermark Coal Project Environmental Impact Statement. Soils, Rehabilitation Planning and Salinity.
April, 2013.

THE CONCERNS

I object to the mine proposed by Shenhua at the Watermark site at Breeza and wish to express this following the release of the related Environmental Impact Statement. I object on many grounds, including the mines likely negative impacts on human health, aboriginal heritage, agricultural productivity, riverine and underground water quality, flora, fauna, traffic, soils, agricultural land capabilities and the associated social impacts on surrounding communities. I am also concerned about increases in dust, noise and other hazards.

Economic benefits have also been overstated as explained in the Nature Conservation Council's commissioned report, *"Economic assessment of environmentally damaging mining and gas developments in New South Wales*"1 – which highlights the overstated benefits of mining with regard to economics and employment, whilst the important issues of the *environment, public health, native vegetation and existing industries* are not sufficiently addressed.[1]

Areas of concern include:

Ecology

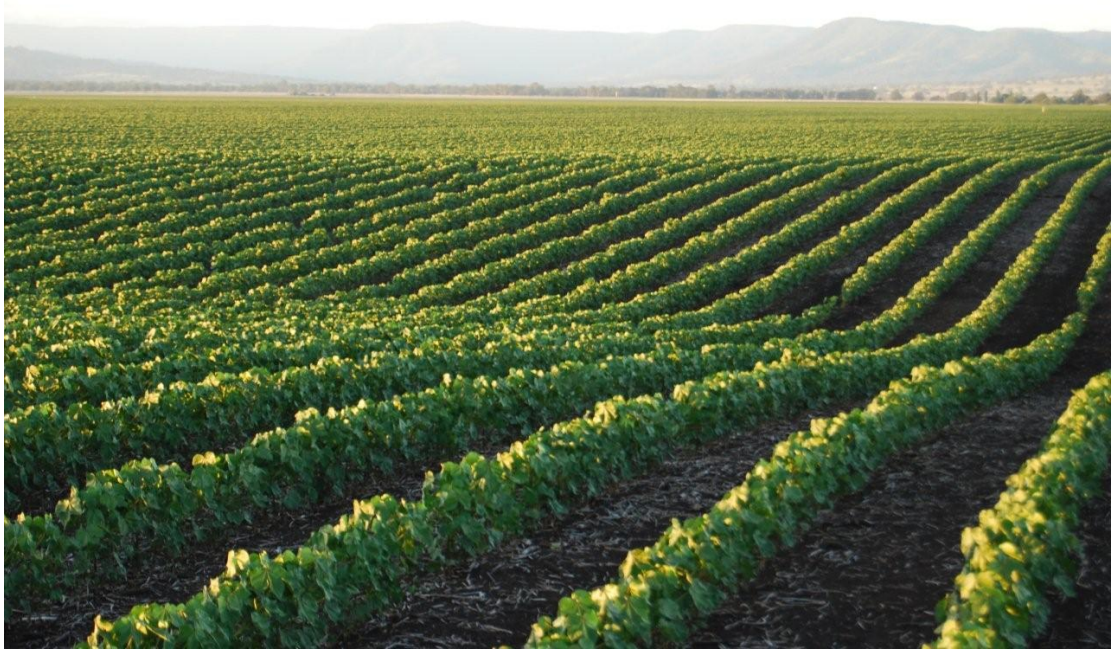
The removal of Critically Endangered Ecological Communities (CEEC) areas of vegetation from within the Watermark project area is unacceptable, given that some of the stated offsets remain outside the Liverpool Plains area and are currently being questioned as to their eligibility as CEEC areas. It is important that vegetation offsets are kept within the catchment of the Liverpool Plains for saline water balance considerations as much for biodiversity considerations

Wind

The wind data in the EIS is inadequate and only wind data from November 2010 to October 2011 was used for the modelling which is not representative of long term variation in the region. It is clear that the air modelling should be conducted over a greater spread of wind conditions reflecting the variable nature of wind patterns in the area. Due to the importance of this issue and the potential for impact on community and assets, it is recommended that wind data over a longer time period is used in the modelling of air quality for the Watermark Project and the impact assessment revised.

Fauna

The translocation of koalas from the proposed mine area, with questionable success of such a proposal, along with opposition to this by the Australian Koala Foundation is unacceptable.

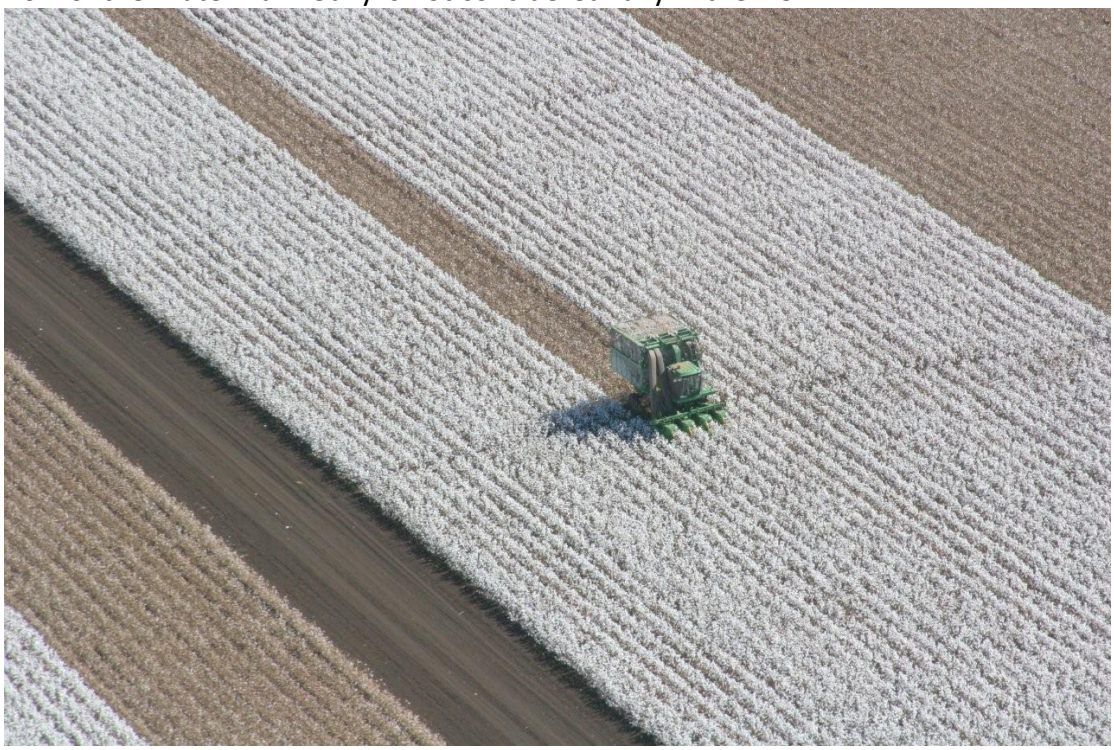


Water

A thorough base line study of all existing groundwater bores and surface water quality by an independent hydrologist to benchmark water quality and groundwater levels to fully assess impacts on surface and groundwater resources during operations and post-closure has not been adequately considered.

In relation to the decommissioning of the first pit to start on the second pit, it has not been explained in any of the water data what will happen when the first void is filled with backfill (porous) and fills with rainfall and possible flood waters. This scenario can lead to seepage from the first void back into the coal seams and aquifers with contaminated water. The assessment of this has been inadequate.

Shenhua need to develop a comprehensive water study of the Mooki River and potential threats to quality and flows further downstream as well as in the immediate area.
There is no explanation of the purpose of the pipes on the Mine Map to the Mooki River – is this for extraction or pumping contaminated water from the void into the Mooki River.
It is of great concern that the Base Line Water Quality (64t of salt per day) in the water pumped from the mine site has not been dealt with in the EIS. Is this contaminated water (heavy saline) to be pumped back onto the area for dust suppression. Rain Events after will leech that water and salt back into the floodplain.
There will be substantial impacts on salinity in groundwater and surface water and these require additional testing and block modelling.
Further testing is required on overburden for saline drainage, as current tests are below a reasonable rate.
Develop a Groundwater Management Plan that addresses the potential for drawdown impacts on regional groundwater systems that may exceed modelled predictions.
The Liverpool Plains area receives very heavy storms, which has caused flooding across the region the last three summer seasons. It is of great concern that such a storm may add to, and exceed, the capacity of sediment storage dams, resulting in contaminated water being released across the black soil plains, into ground water systems and into the Mooki River, which is at the headwaters of the Murray Darling Basin. I am also opposed to the potential reduction in water flows of 25% at Watermark, as stated in the mine proposal.
Watermark Gully is a source of natural overland flow to adjacent farming systems, as well as being the only source of water to the Curlewis Swamp, the only large wetland in the Liverpool Plains. The significant decreases and increases after closure, to the flow of the Watermark Gully is not considered fully in the EIS.



Human Health

The Australian Government's own National Health and Medical Research Council's 2009 Public Statement" advises that all children should have their exposure to lead minimised"[2]. "Children (beginning prenatally) are at the highest risk for lead poisoning because they have the highest exposure, highest absorption, increased penetration of the blood–brain barrier and a developing nervous system that is most sensitive to damage resulting from this heavy metal pollutant".[3]

Lead is just one of the heavy metals contained in coal, extracted with it, and released into the environment from which it was previously restricted via it's placement hundreds of metres underground. The release of lead and other heavy metals like mercury, cadmium and arsenic into our environment is unacceptable and a risk to the health of those in surrounding communities. The heavy metals will be carried in air, water and released upon the burning of coal in power stations.

It may be argued that lead carries just 9ppm of lead. This however, equates to 9grams of lead per tonne of coal removed. With each train wagon carrying 100tonne of coal, that's 900grams of lead per carriage and 72kg of lead per 80 carriage train. Such trains will be travelling past thousands of people as they make their way through communities and to the coal port with loads uncovered – not to mention those communities surrounding the actual mine area - the Breeza residents, land holders and those living around power stations where the coal is burned.

There is increasing evidence of the negative health effects of coal mining on surrounding residents and The State Government, if approving new mines, will do so at the risk of future human health problems and the potential implications of group actions against Government. This is also in light of the fact that there is currently a Health Impact Assessment (HIA) proposed for the Gunnedah Basin which may provide further evidence to support the risks of coal mining on surrounding communities and residents of the Shenhua proposed mine.

Please see the HIA proposal here - http://maulescreek.org/wp-content/uploads/2013/04/Gunnedah-Basin-HIA-Proposal-Draft-3.1-Dec-2012.pdf [4],

I recommend that the NSW Government defers its decision on the Shenhua Breeza coal mine until the completion of this proposed Health Impact Assessment

Noise

I am concerned 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".

Soils

See attached a detailed review of the Soils section of the EIS, ("Environmental Impact Statement. Soils, Rehabilitation Planning and Salinity"), prepared for SOS Liverpool Plains by SoilFutures Consulting Pty Ltd.

Future Potential of the Area

With the Liverpool Plains just 4 hours from Sydney, and produce growing areas around Sydney quickly being built out and the Hunter Valley's production potential already inhibited – the potential for the Liverpool Plains to be the next produce food bowl (fruit and vegetable production) for the ever burgeoning Sydney population is quite real. This Liverpool Plains area, including the Shenhua mine site should be set aside for current commodity and potential future produce production.

Cumulative Effects of the Mine

The effects of the Shenhua coal mine and its likely effects stated in the EIS should not be considered alone. There is currently another coal mine (BHP) exploration license area to the south of the Shenhua Breeza site, whilst much of the surrounding region is covered by a coal seam gas exploration license. Hence, it would be negligent to consider the approval of the proposed Shenhua mine based solely on the prepared EIS, but rather should be considered given the combined potential effects of it with other proposed projects. This pertains to dust, noise, water, human health, increased train movements and the effects on surrounding towns.

CONCLUSION

In conclusion, I oppose Shenhua's proposed open cut coal mine at Watermark near Breeza.

I recommend that the State Government considers Shenhua's EIS in conjunction with cumulative effects of other proposed projects and given the potential for future class action against the NSW State Government as more health data becomes available that indicates the Government would surely be negligent in approving future open cut coal mines. There is also potential for future class action against the NSW State

Government for the potential permanent water damage to groundwater and surface water levels and quality. The Breeza plain is one of the most productive agricultural areas in Australia, if not the World, and if these large agricultural businesses lose their water, responsibility would ultimately be placed back to the NSW Dept of Planning.

I also recommend that the State Government defers a decision on the approval of the Shenhua mine until after the findings of the Health Impact Assessment of the Gunnedah Basin.

References

1. http://nccnsw.org.au/sites/default/files/Economic%20assessment%20of%20environmentally%20damaging%20mining%20and%20gas%20developments%20in%20NSW%20-%20EAL%20and%20TAI%20(April%202013).pdf 25th April 2013.

2. Lead Exposure and Health Effects in Australia – NHRMC position, http://www.nhmrc.gov.au/your-health/lead-exposure-and-health-effects. 25th April 2013.

3. Training for Health Care Providers. http://www.who.int/ceh/capacity/Lead.pdf 25th April 2013

4. Gunnedah Basin Health Impact Assessment Proposal http://maulescreek.org/wp-content/uploads/2013/04/Gunnedah-Basin-HIA-Proposal-Draft-3.1-Dec-2012.pdf , 26th April 2013.