

Vickery Extension IPC Presentation Namoi Water

Tuesday 5<sup>th</sup> February

SLIDE ONE

Jon-Marie Baker has had a family health emergency and was not able to make it to today to speak on behalf of Namoi Water.

I also work as Policy Officer for Namoi Water, however unfortunately I cannot bring the breadth of experience or technical knowledge that Jon would have.

Namoi Water represents Water Access Licence Holders in Namoi Catchment. We are a Non-profit, non-political organisation, seeking to achieve a sustainable irrigation industry that supports the long term environmental, economic and social needs of our local communities.

We have over 800 members who use both surface and groundwater for agricultural purposes. Our members generate revenue in excess of \$800 M each year. The majority of these, more than 90%, are family farming operations. This production is solely possible due to the secure supply of high-quality water.

Our members have experienced over two decades of painful water reforms that in some cases forced people out of agriculture altogether. In the last few years we have seen farmers in this region lose on average, 50% of the entitlements that they had paid for and planned their farming around.

SLIDE TWO

We find it galling to hear Whitehaven Coal claim repeatedly that they only use 1-2% of the water in the Namoi. This is untrue in reality.

Whitehaven Coal own 3,000 ML high security licence for Namoi River Water plus considerable general security water. After water flows into the river, entitlements are allocated first and foremost to essential supplies such as town water needs and also to high security licence holders. It is then also allocated to transmission losses of water which is absorbed when releases are made to a dry river bed. What's left is divvied up to general security license holders.

Whitehaven owns 88% of all the high security licences in the Valley. They get their water first. The total entitlements for the river are 248,000 ML, but the majority of these are general security licence holders who rarely get their full allocation.

Over the last ten years mining industry use of Namoi water resources was on average 8% of total water take each year. In this year they have taken 12.5% of the River resource.

This excludes the surface water that is captured on the mine site, which no longer flows to the River or recharges the groundwater systems.

Furthermore, as Whitehaven is limited by the amount of water they can store on-site they incur increased transmission losses as they can demand water out of irrigation season when the river system is dry. So, if like in 2015 Whitehaven needed 300ML of water out of irrigation season, to get this to them it cost the system 3,000ML of water.

#### SLIDE THREE

The Namoi River is literally life giving and this stretch of the river is particularly important.

The Vickery infrastructure will located be a mere 400m away from the Namoi River (and some have calculated that it will be even closer). This stretch of the river is part of the Boggabri Demonstration Reach. This is a 120km stretch of the Namoi chosen for its rich biodiversity that has taken part in a multi-million-dollar Federal Government program with over 20 landholders cooperating to improve the riverine environment.

The mining industry practice of releasing contaminated water during high flow events risks the biodiversity of this Reach.

The Vickery project expects to have discharges into the river twice per year under "median climatic conditions" and it expects overflows into the river once in every three years. Chronic toxicity to fish was not assessed in the EIS, nor do they propose to monitor the water quality in the dams that will release into the River (apart from suspended solids). Contaminants such as aluminium, molybdenum, silver, mercury, boron and arsenic are expected to be discharged into this life-giving river, without accountability.

#### SLIDE FOUR

Maules Creek mine offers a living eye to the future for Vickery. Our review of the water impacts of Maules Creek mine has eroded confidence in the proponent to safely operate within its conditions of approval.

At Maules creek it has become almost impossible to monitor the true impacts to water due to mining. During the PAC process there was huge community concern about water that the PAC registered and upheld by setting some conditions of approval. Five years on and our review has found:

1. The Water Management Plan should have been updated at least 9 times, with the current one expiring in 2016. It has not.
2. The Water Model (on which all the assumptions of water are based) should have been recalibrated at least twice and an independent review undertaken of it at least 4 times. It hasn't.
3. Despite the critical importance of groundwater for the people of Maules Creek, all but one groundwater baseline monitoring bore has been destroyed by mining. It is virtually impossible to compare the original baseline data with current levels of groundwater. We now hear that something like 25 private

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bores around Maules Creek have gone dry, but the burden to prove this falls to the landholder, and there is no monitoring to use.

And again we see this pattern in this EIS. The Independent Expert Scientific Committee on Water has stated in its review "it is unclear from the EIS which bores will be monitored".

4. Miners are required to buy GW licences to offset their impact, of cutting through an aquifer when they dig their open cut pits. At Maules Creek they have done this. In the very same GW zone we have seen the Minister enact a cease to pump order on irrigators when they thought critical Human Need was at risk. However, in a mining situation it is impossible to stop water from running into a pit so they will never enact a cease to pump. There is a loophole here that the mining industry is exploiting. This essentially means their take is more like a high security take – they get it no matter what the conditions – yet this is supposed to be a general security licence.

#### SLIDE FIVE

We have outlined in our submission a range of concerns about the EIS, but we will just draw your attention to a few things here today.

The Namoi Region has already developed a cumulative assessment tool to look at the risks of mining at Catchment level. However the Department of Planning has not taken up this tool. We are now at a tipping point between acceptable and not acceptable impacts in the Namoi given the cumulative impact of all the mines, along with their continual post-approval expansions and modifications. DoPE has said they are developing their own cumulative impacts tool. But we have not yet seen this. There is no oversight at a Catchment level as to the full cumulative impacts due to this peace meal approach and Vickery is another good example of this.

We request that the IPC demand the Departments' cumulative impacts tool be utilised in this assessment.

Part of the consideration in approving these projects should be what happens if proponents don't mitigate the impacts. DoPE have said that IPC conditions often end up being difficult to enforce and EPA have often discussed their lack of resources to be able to fully police the conditions. If the conditions of approval cannot be enforced then they are not worth having and this should be considered during assessment.

It is disappointing to see the heavy reliance on averages in the EIS. The proponent has owned this site for about five years, monitoring has been occurring here for probably more than 15 years and the proponent has been operating in the region for many years, and yet real annual data is not used. This year in particular shows us averages are not reality and the situation in one year can vary greatly compared with the next year.

As one example the EIS uses an average annual consumptive take in the Namoi of 11,300ML/yr (which would make Whitehaven's take around 26% BTW not 1%). When the actual take (from publicly available sources) in the last few years have ranged from 18,000ML to 23,000ML per year. Using a number that is almost half the actual has big repercussions for the assumptions made.

Records have been kept on flooding in the region since 1891 yet modelling is based on 1955 event being the largest and the rainfall information used is from 1987. Again, this type of data does not account for the natural variability in climatic conditions that are set to increase in frequency and severity in during the life span of the mine.

It is disappointing in this day and age to see the proposal to leave a final void. Quoting the EIS the final void "is predicted to have continued inflow of up to 182ML/year for another 300 years". It will "act as a permanent groundwater sink". It will continually evaporate which "will lead to progressive increase in salinity" And the project "will create permanent reversal in groundwater flow direction". This is an unnecessary risk for the Namoi catchment to burden into the future.

We would also like to draw the IPC's attention to new information released since submissions (and since original approval was given).

The proponent has paid for their own studies that show minimal impact to water and no requirement for further water licences, however with our smaller budget, we have had the work reviewed by one expert, Dr Andrea Broughton, who concurred with the findings of the review of the water data by the Independent Expert Scientific Committee.

We want to particularly draw your attention to IESC's Advice, Section 1, 1,a, part iii. We believe this is critical and refers to a recent Rau et al (2018) report.

The entire premise of the Vickery Extension EIS and in fact, the original project EIS as well is based on groundwater modelling that is now being questioned by IESC.

The EIS is based on a model that uses a Specific Storage coefficient that <sup>is</sup> thought to be under estimated. This equation tells us the volume of water that can be removed from an aquifer for a resultant drop in hydraulic head.

Warwick Gibson  
Tony Pizzard

Ultimately the IESC has said that the Specific Storage parameter has been overestimated which creates an underestimation of the GW level drawdown in Layer 2 (that includes the highly productive and precious Namoi Alluvium). This means the project is not low risk and could result in non-compliance with the NSW Aquifer Interference Policy.

The model author said the model was too big to be able to run different climatic scenarios but in this day and age this is a totally inadequate excuse.

This is a highly significant finding by the IESC and puts in jeopardy all the water assumptions made in the original EIS as well as the Extension. We seek the opportunity to further discuss this with the IPC and have our experts speak to this issue in a private session at your earliest convenience.