My final appeal to the Independent Planning Commission
Against Vickery Extension Project gaining development consent

Ken Crawford
Written submission
4th July 2020

To Commissioners
John Hann
Prof Chris Fell AM
Prof Zada Lipman

Dear All,

Introduction

This is my final appeal to you, to turn around the DPIE recommendation for approval. After a detailed assessment my recommendation is; do not give development consent to the Vickery Extension Project.

Development consent will result in the approval of the proposed built infrastructure, with conditions. This is not acceptable for at least three hydrological and hydrogeological reasons. Your determination is the last chance for the plains community to have their voice heard and acted upon. It is the last chance for fairness and justice in the assessment process.

My view has always presented the case for science. Understanding and protection of our water above and below the ground is of utmost importance to me. I really care about our land and water. I care about the structural integrity of our aquifers and the way they are recharged and discharged.

My case study area is Zone4West of the Upper Namoi Valley where I have undertaken a lifetime of research. I am an independent consultant commencing my work almost fifty years ago. I have worked with the Soil Conservation Service of NSW and a short period of time with Queensland DPI studying run-off and soil erosion on the Darling Downs.

In 2006 I was awarded the MacLean Iedema Award by Irrigation Australia. This was in recognition of my groundwater research in Zone4West of the Upper Namoi Valley of New South Wales. This is a most prestigious national award and was presented at the Brisbane Town Hall as part of the biennial conference.

Coincidentally, Zone4West is the same area as the Vickery Extension Project. It is the area where KLC Environmental has its base. I am a former Principal Consultant for this company.

The area is of national and international significance being recognised by the International Association of Hydrogeoligists (Australian Chapter) as the Seventh Wonder of the Hydrogeological World in Australia. Believe me when I say that I know this area very well, both above and below the ground down to bedrock. This is the 'critical zone' of understanding our environment.

My assessment of flooding and groundwater issues

My assessment of flooding and groundwater issues starts with a review of input from government departments and independent experts. Then I ask the question.
What are the critical control points (CCP) in assessment of this Project? What are the critical points beyond which the assessment process may go wrong?

I have identified three major critical control points that are the 'elephant in the room' or the elephants in the room, if you like. Each one is saying to me do not give development consent. At this point they have failed the assessment test of Ecologically Sustainable Development (ESD). The triple bottom line of economic, social and environmental sustainability.

Critical Control Point 1

The location of the built infrastructure is wrong. It is far too close to the Namoi River and Gulligal Lagoon. Separation distance should be at least five kilometers for this sensitive area of the headwaters of the Murray Darling Basin. Built infrastructure will sit too close to the river and track side by side for nearly half of the distance of the spur rail viaduct bridge. People in Gulligal and Emerald Hill know that this is a bad idea and a bad decision. Our community elders give eyewitness accounts of previous floods and their accounts must be acted upon. They rule out this location.

Potential extreme flooding, made worse by the built infrastructure, must be considered.
The spur rail line will pose a high risk to life, existing infrastructure and cropping.
The poor infrastructure location will prejudice coal against sustainable agriculture: fossil fuel against food and fiber. The future is uncertain in this age of extreme weather events and climate change.

Future high floods are simply unpredictable. Transient numerical models have a high degree of uncertainty so we should not rely on them. Therefore keep off our dynamic confined floodplain and use the alternative access already existing at Gins Leap Gap.

Ecology 101 says that rivers are connected to their floodplains and that there are complex processes going on. The small cross-sectional area of the Namoi River allows regular flooding and water spreading of valuable nutrients and groundwater recharge. This should not be interfered with by large scale built infrastructure.

The prospect of illegal diversion of water under the Water Act 1912 and the principles of the Water Management Act 2000 is a real risk for Whitehaven Coal. This spur rail pathway is already a sensitive 'hot spot' in our valley. Please refer to my published scientific summary papers in your possession and on your website. My recommendation is; do not give development consent to this Project.

Critical Control Point 2

After all the representation and requests to Whitehaven Coal to provide design specifications for their built infrastructure, they have failed to do so. On this basis alone, they cannot be given develop consent. It is well documented and makes commonsense that approval without design specifications is not possible.

Try putting your new house plans to council for approval without design specifications. Would anyone seriously expect development consent? Of-course not! Neither should Whitehaven Coal obtain develop consent! This structure, if built, will not comply with the principles of ecologically sustainable development. It will cause untold environmental and social damage if built. My recommendation is; do not give development consent to this Project.

Critical Control Point 3

The final void will, over time, take its toll on Zone4West groundwater by way of reversing the 'hydraulic gradient'. One of the recharge sources to our zone is upthrust recharge through the fractured rock aquifer. This water flows underground from the uplands under pressure. While the standing water level doesn't reach the surface until Narrabri, the recharge source is nevertheless an important part of the water balance.

Porosity and transmissivity is low in the fractured rock however, over time groundwater loss accumulates. Therefore it meets the criteria of aquifer take and is classified as aquifer interference. This groundwater issue has not been addressed in the Vickery Extension Project EIS.

If depressurized to any extent, through the jointed and fractured bedrock of the ancient paleochannel, there will be a discharge towards the final void. Away from Zone4West and towards the final void of the Mega mine which will gradually fill. Water quality and quantity problems may occur to our precious groundwater. My recommendation is; do not give development consent to this Project.

Conclusions and final appeal

I have identified three critical control points for you to consider in your determination. Please take your time and consider carefully because our future is in your hands. The communities of Gulligal, Emerald Hill and Boggabri are depending on you.

Extreme weather events and future climate challenges make built infrastructure design hazardous. We do not want another 'bridge of death' as occurred in the 2010-11 Queensland floods at Grantham in the Lockyer Valley. Keep large scale infrastructure off our floodplain. I urge you not to give the Vickery Extension Project development consent.

For the sake of our children and their children, and the land itself, do not approve this project. Someone once said, 'We do not inherit our land from our parents, we borrow it from our children'. The 'intergenerational equity' issue associated with this Project is huge. This is our land and water of the Liverpool Plains. This is our home.

Yours Sincerely,

Ken Crawford
M Sustainable Agriculture
BA Earth Science
Hawkesbury Dip Agriculture (Hons)