Larry Cook Consulting Pty Ltd

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DRAFT PRESENTATION IPC – TUESDAY 26TH FEBRUARY 2019

I am a qualified hydrogeologist and have been asked to speak on behalf of Richard and Lynne Crookes who own and operate a successful cattle stud and agricultural business at 180-182 Belanglo Road. I have carried out hydrogeological studies and investigations on the property for the Crookes over the past four years. Three active licensed bores are located on the property, two of which are irrigation bores with a total approved annual water entitlement of 98 megalitres. The bores are an important element in the agricultural use of the land.

Hume Coal accepts that there will be significant impact on the groundwater system (including the water table) beneath the property. In fact, the groundwater model predicts some of the larger drawdown impacts of the project to occur in the vicinity of the three bores.

The owners fully understand that you cannot have any development without impacts whether it be, for example, construction, building a road, house or airport, constructing a dam or mining. They also understand that although the peer reviewed groundwater modelling provides the best prediction of impacts based on the available scientific data at this time, there is still inherent uncertainty.

For example, the initial groundwater modelling predicted drawdowns of 27.3 metres, 21.1 metres and 46.2 metres for the three bores. These impacts equate to a maximum decrease in the irrigation bore yields of up to 64% which would severely compromise the operation and viability of the farm and effectively compromise their access to their 98 megalitre water entitlement. The predicted drawdown will last 36 years, with full recovery after 65 years. The alternative Pells groundwater model that was commissioned by the community predicted even greater impacts.

However, the revised groundwater modelling by Hume Coal reported in June 2018 significantly downgraded these impacts with revised decreases in the predicted drawdown of 27.3 metres (no change), 21.1 to 13.5 metres and 46.2 to 16.5 metres. Although the revised model was peer reviewed and the model deemed suitable for assessing impacts (that is, fit for purpose), uncertainty regarding the accuracy and magnitude of the impacts remains. The fact that the models can produce such wide variances in the prediction of impacts questions the groundwater modelling assumptions.

More importantly there is uncertainty surrounding 'make good' provisions, how and when they are triggered, how they would be implemented and the dispute resolution process. For example, the revised remediation proposals for the three bores did not include the important 30 megalitre bore. However, this bore was later reinstated following an inquiry from the Crookes management, but no mitigation measures proposed. This casts doubt on the make good provisions and how they would be implemented. Lowering of the pump, deepening of the bore/s or relocating bores may not be practical, suitable or beneficial.

For example, lowering pumps in long-established bores may not be physically practical due to technical limitations and the pump specifications may no longer be suitable. Power costs would also increase. Deepening of affected bores may not result in useful additional yield and the water quality may be different. Replacing bores elsewhere on the property would require new surface infrastructure and logistics and may not result in success. Other 'make good' options considered by Hume Coal are enlarging water storages or constructing new dams or piping water around the property, all of which are not considered viable options in replacing or supplementing the 98 ML groundwater entitlement.

Hume Coal has indicated that the plan for 'make good' at each individual bore would be subject to technical feasibility and consultation. The implication is that this process would be undertaken following mine approval and the commencement of extraction operations thus limiting the ability of the owners to negotiate a solution.

In conclusion, the owners need clarity on any 'make good' provisions prior to any mine approval in order to assess any potential loss of farm property value, farm viability, continued investment strategies and possible sale. That is, they need to be able to plan ahead.

The owners also need clarity on the trigger point for 'make good', when they should apply and the dispute resolution process if the impacts are greater than predicted. For example, the possibility that the bores could be dewatered is not addressed by Hume Coal's 'make good' provisions.