Submission No 89

INQUIRY INTO RATIONALE FOR, AND IMPACTS OF, NEW DAMS AND OTHER WATER INFRASTRUCTURE IN NSW

Name: Dr Annette (Tam) Smith

Date Received: 21 September 2020

Dr A D (Tam) Smith

Submission to the NSW MLC Inquiry into the proposed Mole River Dam

My husband and I are landholders approximately 10km downstream of the proposed Mole River Dam. We do not support the construction of the dam and welcome the opportunity to make a submission. We thank Ms Cate Faehrmann MLC and fellow MLCs for establishing this Inquiry.

We are concerned that the current proposal for the dam is driven by political expediency rather than a thoroughly researched consideration of environmental impacts, climate change, river flows, and financial viability.

The data on which Mole River will become part of the NSW Border Rivers Regulated Water Sharing Plan utilises data up to 2009. They do not address the issue of decreased flows of the Mole River in the past two and a half years. For most of this period the river did not flow. Between the location of the proposed dam wall and the conjunction with the Dumaresq River the riverbed, except for a few stagnant pools, was bone dry. The feeder Deepwater River was also dry.

The feasibility report prepared by Jacobs in 2017 is one of the key documents on the WaterNSW website associated with the Mole River Dam. This is despite:

- The report is over 3 years old and it is unclear if any of the recommendations for further studies and investigations have taken place.

- The primary purpose of the Mole River Dam is to provide a more reliable supply of irrigation water to downstream cotton growers allowing them to improve their financial position through better yields and possible diversification into other higher value crops (in particular, almonds). It is hoped that economic flow-on to the regional towns supporting the cotton industry will occur.

- The dam is not being built to improve the water supply to Tenterfield area agriculture or town water supply. It may have some benefit of attracting visitors to the area as a consequence of creating a fishing spot and tourist attraction.

- The feasibility report is very much a desk-top study and is not supported by any recent field studies. In particular, the report is deficient (and largely recognises it is deficient) in the following areas:

    - Water resource modelling has been based on a simplified model by WaterNSW and it is recognised that this modelling represents a high risk to the project viability. Detailed revised modelling has been recommended [p28].

    - No water quality studies have been undertaken [H24]:

    - No substantive geotechnical studies have been undertaken [p32] – the main impact here will be cost increases (geotechnical studies never seem to result in decreases construction costs), thus reducing further the economic viability of the project;

    - There appears to have been very little stakeholder engagement to validate the assumptions of cotton production growth, the investment in new farm infrastructure to support additional cotton production, or investment in new value-added crops (in particular, almonds) [p41]. Will any of this growth actually happen or happen at the rates used in the modelling?

    - There is no discussion anywhere on the impact to the project of irrigation water pricing policy and the result this may have on project viability.

- There does not appear to be strong link between the estimated improvement in water supply reliability provided (4.8% years with zero water allocation improving to 1.9%; a 17% improvement in reliability of supply; a 27% increase in demand supplied) by the dam and a driver for actual agricultural investment. For example, by reducing the years with zero water allocation from 4.8% (current) to 1.9% proposed, will this be sufficient to actually result in a change in grower behaviour to grow more or invest in new crops?

- The project is not financially viable. Using the NSW Treasury recommended cost-benefit analysis discount rate of 7% the project has a substantial negative value (-$170 million). A discount rate of around 2.8% would be needed for the project to be deemed a worthwhile investment; this is very low and not consistent with NSW government recommendations. Basically, the money should not be spent on this asset when there are other more worthwhile projects.

- The project, and water resource modelling, does not seem to address the impact of climate change which at the time of the CSIRO study (2007) estimated a decrease in water availability of 9% by 2030 for the Murray Basin Sustainable Yields project. This does seem a rather important matter to ignore.

- It is unclear that the overall impact resulting from an increase in the regulated water uptake provided by the dam, requiring a decrease in the supplementary water use in order to maintain the SDLs (Sustainable Diversion Limits), will have on the end users. Note that the Borders Rivers water system is currently fully allocated so no new licences are proposed, however the SDLs are not being achieved.

- The capital estimate is given as +/-30-40%. Such estimates seldom reduce as they are refined.

- The project description does not address the relevant issues of climate change, potential future rainfalls, and the associated impact on river flows. There is a lack of climate modelling by which to justify that the Mole River catchment is capable of filling and maintaining a dam of 100GL capacity.

- The viability of the project, both in the short and long term, is not addressed. The project description provides no detail on the impact on flows downriver of the dam site during construction and following completion. There is no mention of the potential/predicted impact on flows downstream during the commissioning phase and after. Again, there are no data provided by which to assess either predicted future flows or the impacts on downstream flows.

- The business case for the Mole River Dam proposal is under development at the same time as survey work is undertaken for the Environmental Impact Statement. The proposal will not be suppling town water to Tenterfield or to upstream agricultural enterprises. The beneficiaries of the investment are likely to be a small number of licence holders in the regulated Border Rivers. A business case for this proposal, including the costs and beneficiaries, should be publicly available before any further planning activity is undertaken.

- The Mole River has high environmental diversity and is recognised as a high ecological value aquatic ecosystem under the Murray-Darling Basin Plan. The regulation of the river through construction of an instream dam will degrade the environmental values of the river.
- There will be a significant impact on threatened fish species: the nationally vulnerable Murray Cod and threatened Purple Spotted Gudgeon, Western Olive Perchlet and Eel Tailed Catfish. Fish populations will lose upstream and downstream movement to breeding and feeding sites, dividing and isolating populations above and below the dam wall. This impact cannot be mitigated.

- There is no justification for the project to be designated as Critical State Significant Development under the NSW Water Supply (Critical Needs) Act 2019. The Mole River Dam will not supply water to Tenterfield or other towns or supply critical human needs.

- The rationale for the dam to improve water security for downstream general security licenses is not justifiable, is not critical and benefits a few at the expense of many.

- There has been no consultation about who will pay for the upkeep of the dam or impacts on water charges and pricing for license holders.

- The proposed dam will flood out productive farmland, areas of important bushland and significant cultural heritage sites while capturing natural flows that support downstream river health.

- The Mole River has high environmental diversity and is recognised as a high ecological value aquatic ecosystem under the Murray-Darling Basin Plan

- The Mole River Dam should be removed from the NSW Water Supply (Critical Needs) Act 2019. There are no towns or localities, including Tenterfield, listed with a critical water supply in the vicinity of the Mole River Dam Project under the Act. Towns and localities on the Barwon-Darling listed under NSW Water Supply (Critical Needs) Act 2019, such as Walgett, Bourke and the Darling River between Bourke and its junction with the Murray River, will be further impacted if the Mole River Dam Project goes ahead and captures more flows from the highly connected NSW Border Rivers.