

From:
To: [Flood Inquiry](#)
Subject: Submission
Date: Sunday, 10 April 2022 2:06:26 PM

My Story

To give this submission some context, I provide the following information.

I am retired, after a career in local government.

My schooling was undertaken at East Lismore Primary and Lismore High Schools.

After moving away, I returned to Lismore some 31 years ago. Having regard to Lismore's history I purchased a property in a non flood zone and raised a family.

In my teenage years I experienced the 1974 flood and multiple floods since that time.

I was employed by Lismore City Council when the current levee was debated and built.

Causes and Contributing Factors

Flood Forecasting

It is clear that in the past three major floods experienced by Lismore, that the BOM has failed dismally in predicting the flood events in regard to:

The amount of rainfall

The intensity of the rainfall

The micro catchments where the rainfall would occur

I vividly remember in 2017 listening to the local ABC on the morning of the day the flood breached the levee. The presenter detailed the predicted rainfall as provided by BOM. This was immediately followed by callers saying they had already exceeded the amounts predicted for the next 12 hours and that it was still raining.

Prior to the first flood here in Lismore this year, I sent my children, who don't live in Lismore, a screen shot of the Brisbane BOM radar map. I told my children, if this comes down we are in big trouble. Guess what, it did. Yet whilst BOM seemed to predict the movement of the rain system they couldn't work out the rainfall quantum or intensity of the system, despite what was happening less than 200 kls away!

Of course with the second flood we have the infamous cancellation and reinstatement of the Lismore CBD evacuation order. But my on the ground truthing, clearing drains in the intense rainfall event, hours before the evacuation order was reinstated. How long did it take for them to work out it was raining up here!

I have no inside information on how BOM operates but it is obvious that its performance in these events is bordering on criminal negligence.

Possible Issues for Investigation

The failures by BOM would seem to be a

Failure in Data collection, rainfall intensity, rainfall amount, catchment saturation levels, tidal impacts, changes in land use

Failure to interpret the data. There is a linkage between poor data and poor predictions but here I am talking about the resources, ie staff and computer modelling that is allocated to possible weather events at any one time.

Failure to communicate in a timely manner, warnings to media, local government, the SES and any other relevant Government body.

Possible Solutions

Rain Data Collection

This is such an obvious fault, as my 2017 example showed.

There seems to be a perception that people can't be trusted and that only electronic recordings of rainfall have merit.

I am not sure if this is a cost saving measure or lazy management caused by staff shortages. But would you rather look out the window or at your computer screen to see if it is raining?

So, auto collection of data is fine, is there enough, a value judgement, but I say no, there are not enough. Therefore, they should increase the number of data collection points even if it is just for redundancy benefits, given that lives are really at stake.

In addition support/supplement/ground truth, this data, by a personal data collection network.

Radar Stations

I would like to raise the issue of the number of BOM radar stations. If you look at NSW, north of Sydney, on coastal areas, we have one at Grafton and one at Newcastle. How far is Newcastle from Sydney!.

We need more radar stations. Can I suggest, Tweed Heads, Lismore, Grafton, Coffs Harbour, Wacol, Foster and Newcastle. This might seem excessive, but micro data collection is the key to accurate forecasting.

In addition, we have this concept emerging of personal responsibility. If you are sitting in a house in a flood zone, looking at a local BOM radar, this can give you a sense of what is happening, beyond just your window view of rainfall that will impact on you and allow you to plan accordingly.

This then needs to be supported by the publication of real time data that is being collected by BOM, presented in such a manner such that people who are looking out the window can use it to make life saving decisions.

Interpretation.

There are rumours about staffing cutbacks, people not being rostered on after hours or

weekends to meet budget targets.

I have no idea. It would be useful if the Inquiry could investigate this rumour.

The value of staff on the ground should not be underestimated. I consider there would be value if BOM staff could be located throughout the regions so they can supplement data with real world experience.

Ideally these would be permanent appointments but even if there could be fly in staff to be sent to potential hot spots it would add value to the interpretation.

Staff are however are limited by the data they received. Which is determined by the quality of the technology that is available to them. Again only rumours but I hear there is a real mixture of 20th and 21st technology trying to be collated.

Lives depend on this technology. Crisis weather events are occurring with increased frequency. We deserve the best technology.

Communication

This has been nothing short of woeful.

In the age of instant communication I can't understand why we have to wait hours between flood updates. Surely BOM will be constantly running flood models as new data arrives and these results should be posted just as constantly.

In this regard river height figures seem to be updated very regularly but at times the readings don't seem to be logical. I think these need to be reviewed to see if their readings are accurate. Lots of people use these figures to work out their personal situation and there accuracy is paramount.

Any Other Matters

Disaster Response Organisations

Again, as in 2017 despite the heroics of local volunteers who can't be praised enough it is clear that the SES organisation has failed the residents of Lismore.

It is obvious that is under staffed by professionals and lacks technical resources needed to carry out their tasks.

With climate change upon us there needs to be a review of how disasters are managed on the ground.

I would suggest that the SES model and the similar but seperate Volunteer Bush Fire Brigade model have had there day.

There needs to be a new combined locally focussed Disaster Response Organisation

Climate Change

I think it is now beyond doubt that Climate change is real, with real impacts upon local communities through extreme weather events.

The good news is, that all being good, this situation should only last for the next 100 years,

albeit that it will get worse for the next 30 or 40 years.

This reality needs to be taken into account when building community resilience to extreme weather events.

Part of this, is the need for a dramatic increase in Government expenditure on infrastructure, which can withstand such events and the creation of the previously mentioned new governance structures. These need to have an emphasis on local engagement to respond in a timely and effective manner when disasters occur.

Land Swap Options

This issues flows from the "fact" that Lismore will be facing an increased flooding risk well beyond the life of anyone living in Lismore.

The nature of Lismore being split in two by the river gives us the option to relocate the residential parts of North and South Lismore. The levee protection for industrial components and the eastern side of Lismore, which incorporates the CBD, could then be increased.

Council has rezoned a large area of nearby land, yet to be developed. This is locally known as the North Lismore Plateau.

The State should explore the option of purchasing the whole of this land, developing it and relocating residents from South and North Lismore.

The option to relocate to include some sort of land swap, purchase at market value, concessional loans.

Thankyou for the opportunity to make a submission. I have no objection to my name or the contents of the submission being made public but would request that my email address be kept private

Graeme Wilson
Resident of Lismore