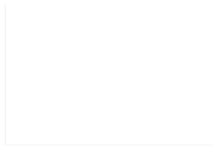


From: [NSW Government](#)
To: [Flood Inquiry](#)
Subject: Floods Inquiry
Date: Saturday, 14 May 2022 11:43:56 AM
Attachments: [Flood inquiry submission 2022.docx](#)



Your details

Title	Mr
First name	Garth
Last name	Luke
Email	<input type="text"/>
Postcode	2482

Submission details

I am making this submission as	A resident in a flood-affected area
Submission type	I am making a personal submission
Consent to make submission public	I give my consent for this submission to be made public

Share your experience or tell your story

Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its [Terms of Reference](#)

1.2 Preparation and planning	My submission in the attached document focuses on improving the accuracy and
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timeliness of flood warnings.

Supporting documents or images

Attach files

- [Flood inquiry submission 2022.docx](#)
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Submission to Flood Inquiry 2022

Garth Luke, Mullumbimby

Summary: We need much more accurate and timely projections of flood levels.

One of the lowest cost and yet most important tasks after these floods is to improve the accuracy of flood height predictions and avoid what one victim of the floods in Lismore described as “life threateningly inaccurate and reassuring” notifications (<https://www.echo.net.au/2022/03/lucy-in-the-sky-with-rainfall/>).

Improved flood height predictions will do much to reduce loss of life and trauma and the loss of precious belongings.

There is understandable imprecision in the prediction of rainfall. However accurate knowledge of recent rainfall, weather systems and changes in river heights should allow the BOM to provide much more accurate and more timely predictions of flood levels that will allow locals to better plan their responses.

Unfortunately, it appears that non-functioning and inaccurate equipment and inadequate modelling has resulted in inadequate and dangerous flood level predictions on a number of occasions.

I have lived in the Northern Rivers area for 26 years and experienced the inadequate flood warnings of the BOM.

Most recently in March 2017 and in February 2022 the BOM underestimated the maximum height of river levels and provided late warnings in the middle of the night when people were least able to respond effectively.

In February 2022 both the Lismore and Mullumbimby catchments had experienced two weeks of often heavy rain followed by very heavy rain of more than 100mm on Saturday the 26th of February. Then on Sunday the 27th more than 200mm + of rain fell. Despite this and the knowledge that the rain system was moving only very slowly to the south, the BOM drastically underestimated the flood levels that eventuated on Monday morning and failed to convey the scale of the problem until the middle of Sunday night.

The inaccurate and late predictions of flood heights suggest that the BOM flood models are too general, too simple and fail to take adequate account of local and historic knowledge. In some cases they appear to even ignore such simple but critical factors as the timing and height of high tides.

It would be instructive for the Inquiry to examine the level of resources going in to projecting flood levels and to see if the resources applied match the importance of accurate and timely warnings.

In the recent flood the residents of Mullumbimby were warned at 3.15pm on the 27th of February that there could be “possible flooding” and that residents in low lying areas may need to evacuate due to rising flood water. Only at 5.50 the next morning, when the river had peaked well above the Major Flood level was there an evacuation order. By that stage it was not possible to evacuate Mullumbimby as the exit roads were flooded.

This late warning was similar to the previous Mullumbimby flood. In March 2017 residents went to sleep after receiving warnings of no more than moderate flood levels for the Brunswick River only to experience a very rapid rise in the river with the high tide at 3am. The result was that residents were given a false sense of security and had to deal with inundated houses and cars in the dark.

In the case of the February 2022 Lismore flood the BOM provided the following warning at 5.50pm on Sunday the 27th:

Wilson's River likely to exceed 7.2 m tonight, may reach major flood level (9.7m) early Monday. May rise to 11m Monday.

This was despite massive amounts of rain already recorded and a clear pattern of continuing heavy rain and slow southward progress of the rain system.

By 10.40 pm that night the warning had changed to:

Due to significant additional heavy rainfall, we have seen very rapid river rises. Major flooding is expected at Lismore early Monday morning. The Lismore levee is expected to be overtopped around 5:00 am Monday. River rises around the levels of March 1974 (12.15 metres) are possible Monday morning, which is above the March 2017 peak (11.59 metres).

In reality the Wilson's River rose to around 11m by about 3am and went on to reach 14.4 m that morning, or more than 2 metres above the previous flood record. Analysis shows there was much heavier rain in the catchment than in March 2017.

My recommendation: That the BOM and other relevant agencies are provided adequate funding to significantly improve the accuracy and reliability of rainfall and river height measurements and to improve the timeliness and accuracy of flood level projections.