

From: [NSW Government](#)
To: [Flood Inquiry](#)
Subject: Floods Inquiry
Date: Wednesday, 18 May 2022 6:13:41 PM
Attachments: [Geoff Little submission NSW Ind Fld inq.rtf](#)

Your details

Title	Mr
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Submission details

I am making this submission as	A member of the general public
Submission type	I am making a personal submission
Organisation making the submission (if applicable)	n/a
Your position in the organisation (if applicable)	n/a
Consent to make submission public	I give my consent for this submission to be made public

Share your experience or tell your story

Your story Although not directly flooded, I engaged with Yamba flooded community members for clean up, pumping out submerged residential allotments, and dehumidifying submerged houses. In further engagement at other flood affected areas of Lismore, Coraki and Woodburn, I have dried out and refurbished 3 ute loads of whitegoods with 100% result for Lismore residents. My wife and I, in conjunction with community delivered foods to Woodburn and Coraki . That experience qualifies me to comment.

Terms of Reference (optional)

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

1.1 Causes and contributing factors detailed in attachment

1.2 Preparation and planning detailed in attachment

1.3 Response to floods detailed in attachment

1.4 Transition from incident response to recovery detailed in attachment

1.5 Recovery from floods detailed in attachment

1.6 Any other matters The 2022 Yamba and environs inundated to an unprecedented extent. Lessons to be learned and applied to policy and planning are both short term and strategic. Failure to address the medium to long term issues is unacceptable given the scientific interpretation for climate change impacting on this predominantly coastal flood plain town.

Supporting documents or images

Attach files

- [Geoff Little submission NSW Ind_Fld_inq.rtf](#)
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Submission to NSW Government NSW Independent Flood Inquiry

Submission by Geoff Little

Wooloeyah, NSW 2464

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***Notes:** This submission relates only to Yamba and environs. Yamba was fortunate in this event not to have received the extreme event catchment rainfall as did nearby areas. The outcome was a comparative lesser level of flood damage. However, it is reasonable to suggest that Yamba may not be so lucky in a future event and there are important lessons to learn.*

Addressing items:

1. The Inquiry is to consider and report to the Premier on the following matters:

a. the causes of, and factors contributing to, the frequency, intensity, timing and location of floods in NSW in the 2022 catastrophic flood event, including consideration of any role of weather, climate change, and human activity;

Primary factors in the Yamba & environs flood event were riverine flooding from the Clarence River and coincident local stormwater. Both were the geographically chaotic outcome of a confluence of low pressure troughs in a La Niña weather cycle.

Secondary factors in flooding onto which the riverine flood and stormwater were superimposed, were the coincidence of high tide cycles and background of climate change related sea level rise. CSIRO states this as [indicatively]15 to 20 cm over the last 100 years. [<https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report>]

Tertiary factors included the inadequacy of and poor level of maintenance of storm water drains to manage such a local rainfall event. In combination with riverine flood levels, again noting sea level rise, storm water drains were observed by long-term residents to flow backwards, exacerbating inundation. Project housing development house pads in west Yamba added uncontrolled runoff where the underlying floodplain had previously moderated stormwater in short term intense rainfall.

b. the preparation and planning by agencies, government, other entities and the community for floods in NSW, including the accuracy and timing of weather forecasts, current laws, emergency management plans, practices and mitigation strategies, their application and effect;
Not qualified to comment

c. responses to floods, particularly measures to protect life, property and the environment, including:

Expert comment by others.

i. immediate management, including the issuing and response to public warnings;

ii. resourcing, coordination and deployment, including with respect to the Australian Defence Force; and

iii. equipment and communication systems

Expert comment by others.

d. the transition from incident response to recovery, including the roles, structure and procedures of agencies, government, other entities and the community;

Expert comment by others.

e. recovery from floods, including:

i. immediate housing, clean-up, financial support and community engagement measures; and

ii. longer-term community rebuilding support; and

f. any other matters that the inquiry deems appropriate in relation to floods.

Clarence Valley Council [CVC] tasked to remove roadside refuse from affected properties with reasonable efficiency. The community rallied to the assistance of flood victims.. On balance, outside assistance was best deployed to disaster zones such as Woodburn, Lismore & Coraki. A longer term recovery issue is road damage with potholes and boggy verges resulting in real vehicular damage. [in my case 2 mag wheels written off] CVC do not have sufficient assets to make good in reasonable time and could not be expected to plan for this event.

2. And to make recommendations arising from the Inquiry as considered appropriate, including on:

a. safety of all emergency service personnel and community first responders;

Expert comment by others.

b. preparation and planning for future flood threats and risks;

Expert comment by others. Notwithstanding, for this submission, based on experience as a member of the emergency services in the Northern Territory, and from post graduate study in energy and climate change, I add the following comments:-

- By observation the SES needs an incentive driven approach for recruiting and training of new members. The lesson from Lismore is that the community can step in and support core SES activities. Incentives that I believe need to be considered to formally involve community members include:-. Once off training and induction after which, returning to normal civilian duty until called up. It must include call-out risk and liability insurance after completion of training, protective clothing and willingness to be on a database available for call-up.*
- Qualified crewed boats are available from Maritime Services and Rescue for riverine work; however for shallow water work for evacuation and emergency, specialist punts are required.*
- Of key concern is apparent lack of flood plain residential housing evacuation plan to designated high ground evacuation shelter.*
- Of additional concern is food security when roads are cut for some days. It is suggested that deployment of a Defence force amphibious craft should be investigated for food supply in and medical evacuations out.*

c. use of flood gauges and other warning structures and/or strategies for improved flood prediction;

Expert comment by others.

d. impact on essential services, including electricity supply, water supply and telecommunications;

Not qualified to comment

e. land use planning and management and building standards, including:

i. the instruments, policies and programs applying to existing development in flood prone locations across NSW; and

ii. the instruments, policies and programs applying to proposed future developments in flood prone locations across NSW;

- *Yamba is badly served for stormwater management. Perhaps more aptly termed stormwater mismanagement. Noting that much of Yamba and all the current expansion is built on a flood plain, the CVC administration by its inaction has demonstrated that it regards community concern regarding notice of departure from proper planning guidelines as nuisance static and unwarranted interference. Specifically existing stormwater easements and drainage systems are inadequate in policy execution, planning and as a fact----other than for conveniently sized and delivered rain events. Further, programmed maintenance or lack of for much of the Yamba flood plain storm water system can be demonstrated as somewhere between non-existent and reactionary.*
- *.No apparent master plan for Yamba exists. At the very least, this as required to design and integrate housing developments storm water into an existing system. Noting---- recent west Yamba developments have exacerbated flooding as seen in Carrs Drive, a traffic corridor for the developments. Storm water followed contours to add to inundation of existing residential lots.*
- *Certain areas of the flood plain in West Yamba originally as paperbark coastal forest and seasonally wet were/are over ground peat. These were historically cleared and drained for grazing. These paddocks are now project housing allotments with fill housing pads. The flood events have saturated the peat and housing pads compaction is now suspect [anecdotal from a can't be named tradie]. The net outcome of this in combination of climate change sea level rise, riverine flood and stormwater drainage inadequacy render these zones unsuitable for development. Noting robust housing should have a lifecycle [with upgrades] of 100 years plus, strategic flood damage mitigation policy must exclude such flood plain areas from housing development.*
- *For all coastal flood plains climate change sea level rise must be a strategic consideration in predicting future flood levels.*
- *Projections for sea level rise vary: The high end for sea level rise by 2100 from a USA sourced report is 1.5 metres.:
[<https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report>]*
- *A more conservative rise is from Australia in the band illustrated by the following table:*

(relative to an average calculated between 1986 and 2005)

Date (unit)	Greenhouse gas scenario (RCP)			
	Very low (RCP2.6)	Low (RCP4.5)	High (RCP6.0)	Very high (RCP8.5)
2030 (m)	0.14	0.14	0.14	0.15
2050 (m)	0.25	0.27	0.25	0.31
2070 (m)	0.37	0.43	0.41	0.54
2090 (m)	0.52	0.63	0.64	0.90

The question arises: For the Yamba flood plain, which scenario should be selected as planning criteria to manage flood events? It suggests approximately a sea rise circa 650mm is the median value. Factor in riverine extreme weather event level flooding and high tide cycles and Yamba floodplain is rendered uninhabitable.

[[https://coastadapt.com.au/sites/default/files/factsheets/\[T3I6_Estuarines_and_climate_change_0.pdf](https://coastadapt.com.au/sites/default/files/factsheets/[T3I6_Estuarines_and_climate_change_0.pdf)]

f. appropriate action to adapt to future flood risks to communities and ecosystems;

Notwithstanding the longer term considerations; Yamba stormwater management desperately requires review for remediation in the flood plain zones. It is a given that future flood events will increase in severity when superimposed on sea level rise. A strategic policy must limit new flood plain development and on a needs basis remediate existing floodplain assets. In the longer term, elevated geographical areas such as Yamba Pilot Hill, Wooloweyah community and Angourie will effectively become island communities.

g. coordination and collaboration between the NSW Government and the Australian Government;
Not qualified to comment.

h. coordination and collaboration by the NSW Government with other state and territory governments and local governments; and

i. public communication and advice systems and strategies.
Not qualified to comment.

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