From:	NSW Government
To:	Flood Inquiry
Subject:	Floods Inquiry
Date:	Friday, 20 May 2022 9:13:11 AM
Attachments:	20220518 NSW Flood Inquiry PGMaslen Submission.pdf

Your details

Title	Mr
First name	Peter
Last name	Maslen
Email	
Postcode	2463

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

Your story	Growing up on the north coast I have experienced flood events since a child. As an engineer and environmental scientist having worked as a consultant, been a member of government department boards and committees, been a member of a local government disaster management team and been employed by local

	government, I have a broad experience in planning, weather and engineering aspects of flood related issues.

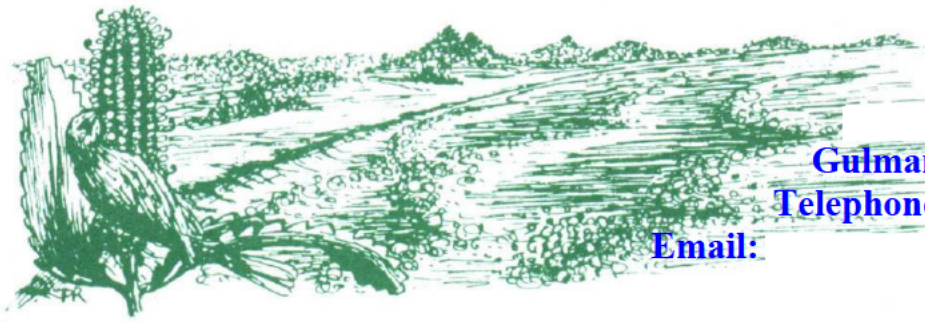
Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its Terms of Reference

1.1 Causes and contributing factors	Extreme weather events and poor government land use planning are the prime causes of the impacts on the community
1.2 Preparation and planning	Notice of flood events are always difficult given the unpredictable nature of weather. While weather predictions has improved the ability to determine a stalled rainfall event such as occurred in 2022 is difficult. Hence record events such as that which impacted the Richmond River are equally difficult to give accurate timing.
1.6 Any other matters	The solution is to move teh historically created townships out of the flood plains thereby minimising teh personal and economic impacts. While the short term issues will be difficult to resolve the long term benefits to the whole community will be significant.

Supporting documents or images

Attach files	• 20220518 NSW Flood Inquiry PGMaslen Submission.pdf



P G Maslen

Gulmarrad. NSW. 2463
Telephone:
Email:

18th May 2022

NSW Independent Flood Inquiry
Independent Planning Commission of New South Wales
GPO Box 5341
Sydney NSW 2001

Attention: Professor Mary O'Kane AC

SUBJECT: NSW Independent Flood Inquiry

Dear Madame,

This is my submission for the NSW Independent Flood Inquiry.

The NSW government is to be commended on ensuring the community can make a submission on this issue. Any information resulting from this inquiry should be made available to the community and the community given the opportunity to make further comment or submission.

I grew up in Mullumbimby in the 1950s and 1960s and currently live in the lower Clarence River area with a heritage that dates back to the 1830s in the Richmond valley. Flooding is an issue I have experienced throughout my life. On retiring to Gulmarrad, the first issue I checked when purchasing our home, was to ensure that there was negligible possibility of flooding selecting a site over 15 metres above the 1% AEP (Annual Exceedance Probability) flood level. Flooding will be a permanent feature throughput most areas of the state. The community and government must learn to manage the impacts in a far superior manner than what has occurred to date. I have been involved with disaster management and had training and accreditation with Emergency Management Queensland prior to retirement.

The following are comments on each point

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;

      The floods were the outcome of a weather event that was not typical in that the low pressure system causing the high rainfall did not move down the coast as is typical of lows resulting from cyclones coming from the north or east coast lows moving up the coast. As it stayed stationary for a longer period the intense rain caused river heights and local stormwater to reach higher levels than previously experienced. The water in rivers and stormwater that could not flow into already swollen rivers caused both riverine (such as that in Lismore) and local flooding (such as that in Yamba).

      Climate change is a probable explanation for the extreme event of March and February. Predictions by organisations such as the CSIRO predicted this was a

possibility decades ago. Successive Australian governments at state and federal levels of all political persuasions, have ignored this possibility resulting in negligible planning for this inevitability. In coastal areas such as Ballina and Yamba sea level rise has been predicted to occur progressively and hence the likelihood of inundation from this cause is likely within few decades.

Human activities which have exacerbated the level of flooding, are numerous some of which will be addressed in later sections, are as follows:

i. Historical location of towns and villages;

   Most of the major towns on the north coast were established in the mid 1850s when rivers were the primary transport routes resulting in towns and villages being built as river ports. Over the ensuing decades these urban areas grew without any significant consideration of the flood impacts. Hence when an extreme weather event occurs the towns are at the mercy of the flood waters event with the construction of engineered solutions which can never really guarantee the protection of these areas.

ii. Poor town planning in recent years approving of urban and industrial land use on flood plains;

   Town planners have a prime policy of expediting development and regularly do not consider environmental factors or ignore them. Approvals of development applications for residential use should never be given on a recognised flood plain. There are local governments in Australia whose planning schemes prohibit urban development including industrial uses on flood plains. These council areas have less disaster issues and the communities have less costs and trauma due to flooding. If common sense were to prevail governments at all levels should ensure flood prone land is only used for agricultural or recreation uses.

   An example of poor planning is the west Ballina canal subdivision which was flooded significantly.

   Flooding in Yamba was not only worse due to the extreme weather event but was increased by Clarence Valley Council approvals in the Carrs Road and Cameron Street due to stormwaters being dammed by inappropriately approved fill, stormwater drainage not being installed as approved and poor maintenance of stormwater facilities. Subdivision approvals on flood prone lands have been filled increasing levels by 2 to 3 metres causing a damming of stormwater and flooding of dwellings that have not occurred previously. This has occurred during high rainfall events prior to the 2022 event.

iii. Inappropriate theory as to the capability of water supply dams to prevent flooding;

   The fallacy that water supply dams can achieve the dual role of flood water control has been proven in Australia and throughout the world to impossible to achieve. Even the past premier of NSW recognised that dams would need to be maintained at 40% capacity to achieve successful flood control. The Hawksbury River flooding of urban areas has been caused to a significant degree by poor town planning. The claim that raising Warragamba Dam will safe guard existing and future urban areas will not be realised. Example in Brisbane in 2011 and again in 2022 caused by flow releases from Wivenhoe Dam and in Townsville in 2019 from the Ross River Dam, are recent proof of this.

iv. Poor land management reducing vegetation cover and riparian zones; and

In my opinion the primary cause of the worst flooding in Mullumbimby when water was 30 to 40 cm into Burringbar Street for the first time, other than a freakish weather event, was the uncontrolled clearing of rural lands in the catchment. In the 1960s the river immediately below the Federation Bridge on the west side of the town was deep to the extent that as a teenager one could dive safely into 10 to 15 metres of water. By 1990 one could walk across the river due to siltation. This inappropriate activities on rural lands are encouraged by the government's vegetation clearing legislation. Tighter controls on land clearing must be reintroduced to ensure riparian zones and general vegetation which will assist in attenuation of flows thereby reducing the intensity and timing of floods. In addition, this would have the added benefit in protecting some of the natural environment and biodiversity.

v. Poor maintenance of stormwater and flood mitigation facilities by government, along with changes in regulations that prevents rural land owners maintaining flood mitigation facilities.

Transfer of responsibility for flood management, the lack of resources of local government especially in areas like the Clarence River to maintain facilities and the implementation of inappropriate measures attempting to solve previous poor planning results and installing low bid equipment of inferior quality, appearing to be a cost saving but inevitably causes greater long term costs and negative impacts on the community. In the past rural land owners maintained flood control infrastructure in some areas. Anecdotal reports have advised that this is no longer the case and local government are not taking over appropriately leaving facilities in a poor or inoperative condition.

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;

Weather prediction is partially science, partially experience and a balance of luck. In the March and February events, it was not possible to predict the events would stall and create a longer heavy rain event as occurred. Many places on the north coast experience the highest on day event in February. While I thought this was not possible given what I had experienced in the past the 296mm recorded in my gauge on the 28th February was a good example. While I have experienced a worse event in 2005 while living in Cleveland, Queensland where I recorded 250mm in one hour with the resulting flash local flooding, the recent event was unusual and difficult to predict.

In the short term in areas like Yamba where irresponsible planning decisions have resulted in increased flooding, the partially completed subdivisions should be halted and solutions that should have been conditioned in some approvals or thorough compliance of partially completed works stopped and the conditions enforced at the applicants' expense. The longer term planning requirements should be to relocate urban uses, especially housing to areas outside the flood plain.

Emergency management plans in areas that are isolated, must be developed and infrastructure constructed to ensure towns like Yamba are not isolated by stormwater and riverine flooding. Inappropriate planning approvals have resulted in some areas including aged care facilities being isolated with no ability to escape either stormwater

or riverine flooding. The result is people in poor health are unable to access assistance and food supplies for whole towns are depleted.

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

Outside assistance was best deployed to disaster zones such as Woodburn, Lismore and Coraki. A longer term recovery issue is road damage with potholes and boggy verges resulting in vehicular damage. Council like Clarence Valley Council with a large local government area and a relatively small rate base, do not have sufficient resources to make good in reasonable time and could not be expected to plan for this event. Assistance for these local governments is required to reinstate infrastructure to an acceptable level.

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;

   No comment

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

   No comment

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

   No comment

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

   No comment

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

   From a town planning perspective, subdivisions in flood plain should not be permitted. Zoning for uses that can be negatively impacted by flooding should not be designated in flood prone areas. The construction of buildings and infrastructure which can be negatively impacted by flooding should not be permitted.

   From an infrastructure planning perspective proposal such as the Warragamba dam raising should not be considered.

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

      Relocation of residential areas in existing flood prone areas such as Lismore should be progressively carried out and the previous residential lands put to various public use. Alternatively, the lands could be rezoned for uses where flood would not have a significant negative impact.

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

No development which can be negatively impacted by flooding should be permitted on flood plains

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

The costs to the community due to flooding is astronomical. The two main issues causing location of flood devastation are historical prior to government controls and poor planning by successive governments for over a century. Even those of us smart enough not to locate in flood prone areas experience increased costs and disadvantage due to additional government and insurances charges caused by expenditure resulting from flooding. If governments did not need to supply disaster relief in all its forms the costs to government would be reduced and future costs to eth community could be less of the resources used in flood relief could be spent in a far more positive manner for all the community and not just for the disadvantaged few. Hence the short term costs in a progressive withdrawal from flood prone lands would in the long term be a sound investment for the community.

Ecosystems have generally adapted to existing in the natural environment whether it be rainforest, desert or flood plain. Climate change will impact on some systems in a less than desirable manner. The biggest impact on ecosystems is human land use. The riparian zone of waterways is a classic example. The loss of riparian zones has caused bank instability, additional loss of river water quality, loss of habitat for fauna, reduction of aesthetic values of waterways. The reinstatement of riparian zones must be a high priority for government. The increase in vegetation clearing which has occurred since the passing of the Biodiversity Conservation Act 2016 has no doubt increased runoff contributing to increased river flow and general loss of local biodiversity. A review of the land clearing in NSW must be an outcome of this inquiry.

g. coordination and collaboration between the NSW Government and the Australian Government;

No comment

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

No Comment
and

i. public communication and advice systems and strategies.

No Comment

I look forward to feedback on council's assessment of this application.

Yours faithfully,

Peter G Maslen BE BSc FIE(retired)