

**From:** [NSW Government](#)  
**To:** [Flood Inquiry](#)  
**Subject:** Floods Inquiry  
**Date:** Thursday, 21 April 2022 6:37:20 PM  
**Attachments:** [Far North Coast Flooding Submission.docx](#)

---

## Your details

---

<b>Title</b>	Mr
<b>First name</b>	Garry
<b>Last name</b>	Owers
<b>Email</b>	<input type="text"/>
<b>Postcode</b>	2477

---

## Submission details

---

<b>I am making this submission as</b>	A resident in a flood-affected area
<b>Submission type</b>	I am making a personal submission
<b>Consent to make submission public</b>	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](#)

---

## Supporting documents or images

---

---

**Attach files**

- [Far North Coast Flooding Submission.docx](#)
-

21<sup>st</sup> April 2022

Garry Owers BAppSc (Hons)

Meerschaum Vale,  
NSW, 2477.

Ph:

E:

Submission: NSW Flood Inquiry

Far North Coast Flooding

Dear Sir or Madam

In relation to flooding in the Richmond catchment during February, March and April 2022.

I am writing as an environmental scientist, from 2003 I was employed as a project officer for Bungawalbin Catchment Management Group and WetlandCare Australia, from 2010 floodplain project officer with Richmond River County Council and then Rous County Council following amalgamation. I was involved in flood mitigation, community awareness, grant applications, water quality monitoring and wetland and river restoration and later worked as a water quality consultant from 2018 - 2020. I am the RFS captain for Meerschaum Vale brigade and as such was heavily involved in local flood relief in Wardell, Meerschaum Vale, Broadwater, Dungarubba and Woodburn. I predicted the overtopping of the Lismore Levee in 2017 and for Feb and March 2022. I would therefore like to suggest the following issues for informed consideration: -

- Extensive flood studies have already been done on behalf of Richmond River County Council (RRCC) including the Richmond River Flood Mapping Study by BMT WBM in 2010 and the 2016 Flood Warning and Evacuation Management Review by BMT WBM. RRCC under the leadership of Michael Wood was very proactive in flood mitigation and awareness and initiated many programs to improve the management of the floodplain including numerous flood studies, flood website development, RRCC website with flood mapping, voluntary house buyback and voluntary house raising. Projects included the Land and Water Management Plan for the Tuckean Swamp 1996, commissioning and implementing the Coastal Zone Management Plan, water quality programs, wetland and riparian restoration, Richmond River Backswamp Management Cost Benefit Analysis 2013, Richmond Ecohealth Project UNE 2014, mapping of the condition of rivers and creeks, landowner education and survey, Backwater studies SCU, and close work with universities. Unfortunately, when amalgamated by Rous County Council (RCC) most of this work stopped once I was laid off in 2017. I was able to continue the water quality monitoring from 2018 as a consultant up to Feb 2020 when all monitoring stopped. RRCC have since restarted the water quality program in conjunction with SCU however their monitoring does not include water height which is critical. In 2018 I completed a report on the 2017 floods for Southern Cross University Flood Centre (March 2017 Lismore Flood, G Owers, 2018). The flood centre which received government funding from the 2017 flood has since closed due to the discontinuing of funding which is a total waste of time, money and resources.

- The flood plain has already been overengineered to mitigate flooding to towns and agricultural land using levees, drains, floodgates, barrages, flood escape and flood diversion works. All backswamps and wetlands, which once held floodwater are now drained and flood gated. This has had the effect of confining the rivers allowing river levels to rise quicker with greater water velocity. Increased velocity allows bare or weed covered banks to be quickly eroded endangering houses and infrastructure, washing away farmland and spreading soil over the floodplain and out to sea. Before flood mitigation works floods were allowed to spread out reducing river rise and velocity and filling backswamps and wetlands such as Rocky Mouth Creek Swamp and the Tuckean Swamp which have since been drained and had barrages fitted to prevent backflow. Kookami Swamp west of Coraki has also been extensively drained, although fortunately not flood gated and Newrybar Swamp has been drained and partially flood gated.
- Blackwater and fish kills are a result of artificial drainage and the introduction of vegetation intolerant of flooding. Originally acid sulfate soils in wetlands were buried below peat and impermeable clays. Drains cut through these layers allowing oxidation which creates sulfuric acid and allows the deposition of monosulfidic black ooze (MBO) in drains which if mobilised by flood flows causes inorganic blackwater which can strip oxygen from water within five minutes and kill all fish and gilled organisms. In addition, the drainage of backswamps and replacement of flood tolerant vegetation with flood intolerant vegetation results in plant death and bacterial decomposition creating organic blackwater after five days inundation which can wipe out the whole river and estuary system.
- Clearing of flood tolerant riparian vegetation, which used to hold banks together has resulted in the river systems becoming wider and shallower as rivers filled with sediment. Not only does this restrict how much water rivers can hold but erodes farmland and reduces water quality and fish breeding.
- The new highway as predicted has caused major alteration to flood flows by effectively placing a dam wall across the floodplain resulting in increased flood height, velocity and duration. The towns and areas of Coraki, Bungawalbin, Woodburn and Broadwater are on the upstream side of this new dam wall and so will have experienced deeper and longer flooding than normal. The town of Wardell although downstream of the highway was impacted by water accumulating on the upstream side and then funnelled at high velocity under the new Richmond River bridge at Broadwater and directed across the floodplain to come up on Wardell from the southern side. This was demonstrated by a shipping container floating north east from the old highway on to River Drive Wardell.
- Ballina often is flooded by their stormwater drainage system when river water flows back up the stormwater system. When working at RRCC I did attempt to apply for funding to retrofit floodgates to their drainage pipes but this was rejected by Ballina council although supported by staff.
- With four local government councils spanning our catchment, RRCC used to act to bring all councils together and apply for funding to improve the whole river system. This

arrangement seems to have been scrapped when RCC took over so there appears to be no one body in charge of improving the river.

- Buy back of flood prone houses in high velocity areas and conversion to parkland is one option while raising houses can isolate people in their houses when floodwater rises with no means of escape.
- The rescue of people from the floods mainly relied on volunteers, there was little coordination and little involvement with government departments or councils. If it was not for the fleet of small private boats many more people would have died. The SES also relies on volunteers but has only two flood boats in Lismore and individual RFS brigades have to wait for an official callout and cannot self-activate although to some extent this happened as members took fire trucks out and helped anyone they came across. The RFS also does not have any fire boats that could have assisted in evacuation. The SES and rescue helicopter bases in Lismore are also flood prone along with the Coraki SES and the Woodburn SES and RFS station. Woodburn SES had to launch flood boats directly from their shed into floodwaters and their two vehicles were submerged.
- Prior to the installation of the Lismore flood Levee when the water level rose business used to self-evacuate. Levee construction brought an air of complacency in the business and residential community with business as usual even with an impending flood. This was the case in March 2017 when the levee overtopped catching many by surprise and leading to huge losses including my work vehicle when a Rous County Council manager refused to take our advice that the levee would overtop and that they needed to evacuate staff and relocate vehicles. In the 2017 floods Rous County Council managers had no involvement with the SES, previously RRCC had ongoing consultation with the SES before, during and after floods.
- The telecommunications failure is a direct result of privatisation. As a former Telecommunications Technical Officer with the PMG department and Telecom Australia I am aware of the high standard achieved prior to corporatisation and privatisation. The PMG department was Australia's biggest employer and largest trainer of school leavers. Every town including Lismore, Alstonville and Ballina had a lines yard with trucks, tractors and skilled linesmen ready to respond. The copper system while not capable of dealing with high-speed internet was excellent as a phone system. Power was supplied from the exchange, which had backup batteries and generators allowing communications regardless of the power supply. The mantra was to do a good job, which changed following corporatisation to that of "do a quick fix even if it fails a week later". Tens of thousands of highly trained technicians and linesmen were retrenched due to privatisation. Our current wireless NBN requires at least 48w of 240 v power to operate, lose the power and we lose both phone and internet. In Meerschaum Vale the whole system failed completely for two weeks between 28<sup>th</sup> February to 14<sup>th</sup> March leaving me organising RFS crews by patchy mobile text. Phone and internet then failed on 17<sup>th</sup>, 18<sup>th</sup> and 22<sup>nd</sup> March and went down again between 31<sup>st</sup> March to 7<sup>th</sup> April following the second flood. Basically, the phone system was more reliable in 1901 at Federation and formation of the PMG department.

- Our electricity network has also suffered from privatisation of the poles and wires and generation. Thousands of workers have been sacked resulting in reduced maintenance and insufficient workers to deal with emergencies. Private companies want to take the profits but not pay out on wages or works and run systems to fail.
- Privatisation of our NSW Government Insurance Office (GIO) has led to residents unable to afford high flood insurance premiums. Now with this flood rendering thousands more residences flood liable, house prices will drop and new home owners will not be able to take out loans to purchase due to the high cost of insurance.
- Climate change is the force behind the increased energy and instability in the atmosphere and this is making environmental disasters worse. Unfortunately, the LNP government is tied to supporting fossil fuel donors. Even with action on climate change, floods will continue to get worse but without action, floods will get much worse.

### **So, what can be done**

- While the current studies and mapping does need to be updated, I would suggest that the company with the best understanding and background be used which is BMT WBM and that would be far cheaper and efficient than the \$10 million proposed by Kevin Hogan.
- The Richmond and Wilsons Rivers need the appointment of a River Keeper to take charge of the restoration of our rivers, creeks and wetlands across all four local government areas.
- There needs to be a government organisation created to collate flood data, plan and carry out real time monitoring, mapping and prediction of flooding using all sources such as rainfall, river levels and topography fed into flood models to predict what areas will flood, when and to what depth and velocity. This is achievable and was being undertaken by RRCC prior to amalgamation in 2016. This information would then be supplied on a dedicated website with flood cameras which would advise the SES, police and residents allowing coordination and staged evacuations to take place.
- Improving flood mitigation would involve removing levees, floodgates and barrages, filling in drains, restoring native riparian vegetation to hold banks together and restoring backswamps and swamps to allow floodwater to slowly spread out. This will also improve water quality and fish habitat and reduce the occurrence of blackwater fish kills. Green engineering rather than the traditional hard engineering which has got us to this point.
- High set or raised houses should include a life boat hanging off the veranda and all residents and businesses should have a flood plan. Houses at least should be retrofitted with a means to access the roof from a veranda or roof cavity. This could comprise a ladder and roof hatch and would stop people getting trapped inside rooves as floodwater rose. A requirement for lifejackets would also be a good recommendation.
- Move SES, rescue helicopter and RFS to flood free land and supply the SES with more boats. Supply the RFS with fire boats and allow the RFS to self-activate particularly in emergency situations when communications are down.
- If you want to fix telecommunications, you would need to nationalise or buy back Telstra, reopen training centres, build up the workforce by tens of thousands, reinstate the copper network to power modems and reduce charges to customers while improving coverage.
- The electricity network also needs to be re-nationalised with thousands more workers trained and employed with more depots.

- The new highway should never have been placed where it was however it needs a lot more culverts and pipes under it to reduce its tendency to dam floodwaters.
- Ballina town needs all of its drainage network flood gated, high tides currently enter streets and this will only get worse.
- The government needs to start up a federal government insurance office offering flood insurance at affordable prices. This will help to cap prices for commercial insurance companies.
- The government needs to detach from the fossil fuel lobby and embrace renewable energy. If this had been done 20 years ago, our electricity network would run on renewable energy and we would be happily driving electric vehicles which are not dependant on imported fuel and produce much lower emissions, thereby helping to avoid the worst of climate change. Banning large political donations and a federal ICAC would be a good start.
- Remove charges from accessing Manly Hydraulics historical flood data, at present free data is only available for the previous four days. Below are hydrographs Fig 1 & fig 2 for the February and March floods where I collected BOM data until the internet failed.
- Copies of publicly available reports are accessible through Rous County Council, SCU and myself.

Obviously, the chance of an LNP government adopting any of these initiatives is slim however proposing hard engineering solutions to an environmental problem is a recipe for failure.

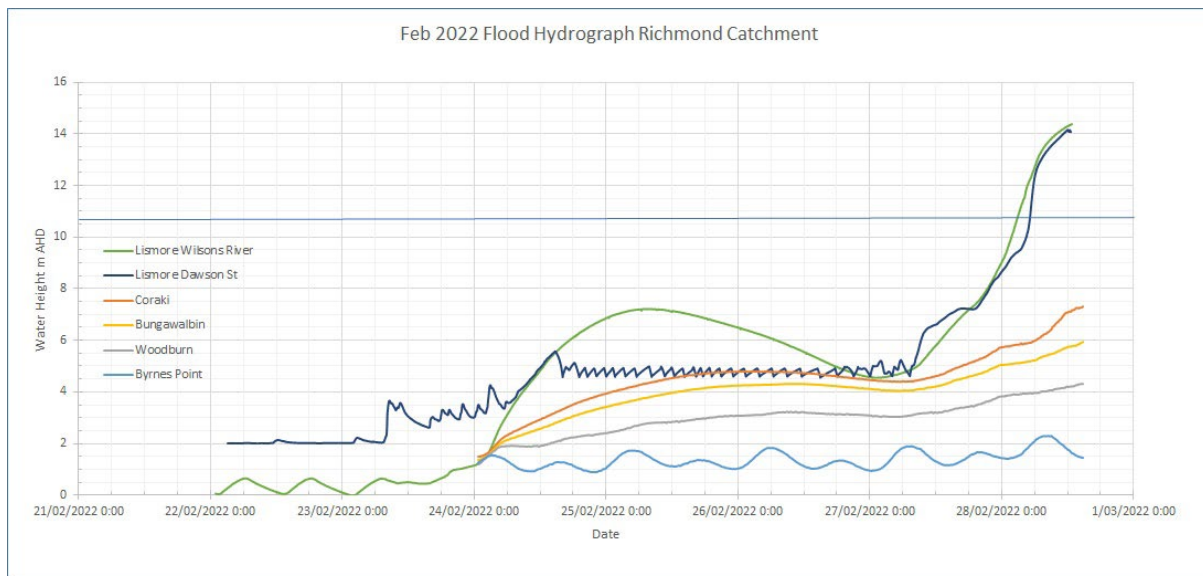


Figure 1: Flood hydrograph for February 2022 showing Lismore levee overtop height.

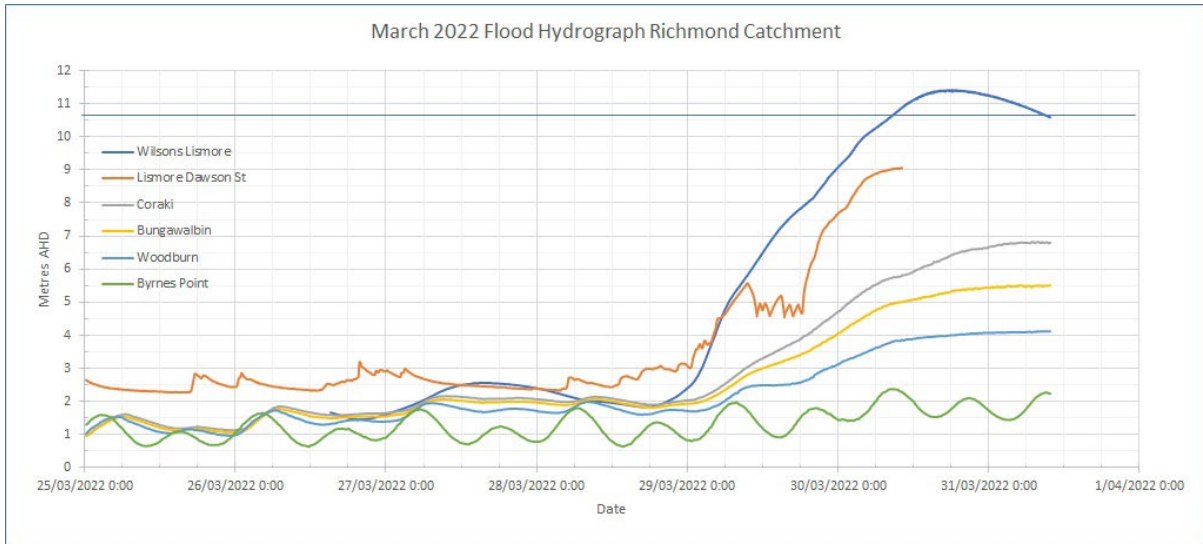


Figure 2: Flood hydrograph for March flood 2022 showing Lismore levee overtop height.

Yours Sincerely

Garry Owers