

From: [NSW Government](#)
To: [Flood Inquiry](#)
Subject: Floods Inquiry
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Attachments: [Flood Inquiry Submission.pdf](#)

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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
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	David Tomlinson is an economist and financial journalist. He was raised in Lismore, went to school at Richmond River High and experienced regular floods. He left Lismore in 1966 to study economics and work with the Reserve Bank of Australia. He returned with his family to the area in 1989. He served nine years as a Lismore City
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Councillor at a time when the flood levee was built. He lives in Modanville, a flood-free suburb of Lismore

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

Climate Change contributed to the monster flood. These floods will happen again. They may get worse. The destruction happened because Lismore CBD and residential areas in north and south Lismore were built on a flood plain. This was, and still is, a major mistake. We cannot go on as before. We have to change.

1.2 Preparation and planning

Flood warnings were inadequate. Flood gauges were in some cases non-operational which meant inadequate warnings were given. Crucial infrastructure was placed in well-known flood affected areas.

1.3 Response to floods

The SES was overwhelmed. Communications including mobile coverage, broadband and landlines failed when they were needed most. Large areas lost power - in some cases for days and weeks. It was impossible at times to find out what was happening.

1.4 Transition from incident response to recovery

The transition to recovery is painfully slow. Businesses are closing permanently and residents are leaving because there is no clear response from government on what happens next. Will the CBD be moved? Will there be buy-backs and loans waps. Will there be substantial grants to rebuild community infrastructure? We are in danger of experiencing a long term decline in Lismore. This will be caused by a negative multiplier effect.

1.5 Recovery from floods

Every major flood brings Lismore to its knees. We have had three major floods in five years and six major floods in 12 years. It is insanity to

continue like this.

Lismore has to adapt to climate change. Climate change is not going away and will get worse.

This means we have to make the difficult decision to move off the flood plain. We must retreat.

Lismore cannot go through this immense destruction on a regular base and expect to thrive.

1.6 Any other matters

Governments of various kinds allowed development on the Lismore flood plain, They collect taxes and rates from business and residents and have been doing so for 150 years. They need to take responsibility and lead a long term sustainable recovery. This basically means adaptation and retreat off the flood plain. They must do this quickly.

Speed is essential in the recovery process. We need certainty so we can plan.

Supporting documents or images

Attach files

- [Flood Inquiry Submission.pdf](#)
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Flood Inquiry 2022 Submission

David Tomlinson BEc* April 21, 2022

Key Points

- 1. Climate Change is happening and will get worse. This fact must be at the centre of all planning for Lismore's reconstruction - or it will fail.**
- 2. Reconstruction plans must be formulated and implemented with utmost speed to prevent Lismore from a negative multiplier effect that would see people leave, businesses close, economic stagnation and people lose hope. Such a scenario has been seen elsewhere and leads to further declines. Extensive consultation with the community will be essential to gather support.**
- 3. The costs of the latest floods are incalculable, but they include the loss of life, community infrastructure, housing, business closures, the loss of housing, higher unemployment, homelessness, mental illness, and a loss of hope. They are ongoing and without change will continue every time there is a major flood.**
- 4. Lismore floods regularly. The floods are becoming bigger. There is an overwhelming economic case to move the CBD and much of the residential area in the flood plain to higher ground. Climate change means we must adapt and retreat. The benefits from such a move would far outweigh the costs.**
- 5. Policies must be introduced that give people and businesses a voluntary and economically viable option to move from the flood plain. Given the immense destruction that occurs every time there is a flood, this becomes an investment not a cost. It will pay for itself many times over.**
- 6. Banks and Insurance companies are reassessing flood risks in the area. Flood insurance and mortgages for properties in flood areas will either become much more expensive or unavailable completely. People who cannot leave, or choose not to leave the flood plain, may well become trapped – unable to move and unable to sell. New investment will be negligible. The flood plain will become a poverty trap. A subsidised reinvestment pool is not the best answer.**
- 7. We need to vastly improve our communication networks to ensure they are climate safe and do not fail when they are needed most.**
- 8. BOM and SES must improve the reliability of flood warnings and ensure the information they get is accurate and their models are fit for purpose. Climate change means that flood mapping such as the 1 in 100 year flood, are way out of date. They are inaccurate, misleading and potentially dangerous.**
- 9. We must become flood ready and more self-reliant in such things as food and fuel.**
- 10. Climate change and the natural disasters that it brings with it, mean our emergency response capability must be improved. In the February flood they were overwhelmed.**

Lismore at a crossroad

After a monster flood on February 28, 2022, and another major flood a month later, Lismore is at a crucial point in its history.

How it responds to the latest devastation will determine whether it becomes a stagnant city in decline, with a falling population, little economic growth and a welfare dependent citizenry or a vibrant, growing city in a beautiful part of the world that is strong, resilient, and most importantly, climate adapted.

For the second option to take precedence, a huge investment will be required, some tough decisions will have to be made and Lismore will have to adapt to a changing climate. Done properly, the investment will pay for itself many times over.

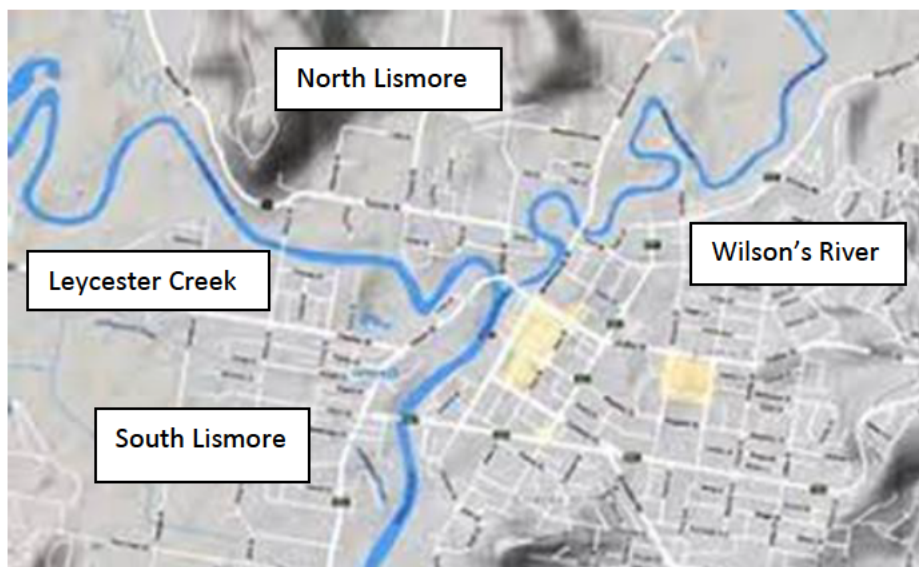
We must acknowledge that every time there is a major flood, Lismore is brought to its knees. It takes years to recover. Floods are certainly not going away; indeed they are likely to become more severe and perhaps more frequent.

How long are we going to allow this to continue?

How did it get to this?

Around the Northern Rivers, Lismore is colloquially known as The Wok.

The centre of Lismore is situated on a flood plain, huddled around the junction of the Wilsons River and Leycester Creek. The flood plain itself is surrounded by mountains, hills and plateaus, some very steep. Rainfall can at times be prolonged and torrential. The catchment areas of the two rivers are found to the north of the city and when it rains heavily, the water can thunder down the riverbeds and swamp the city and surrounding areas.

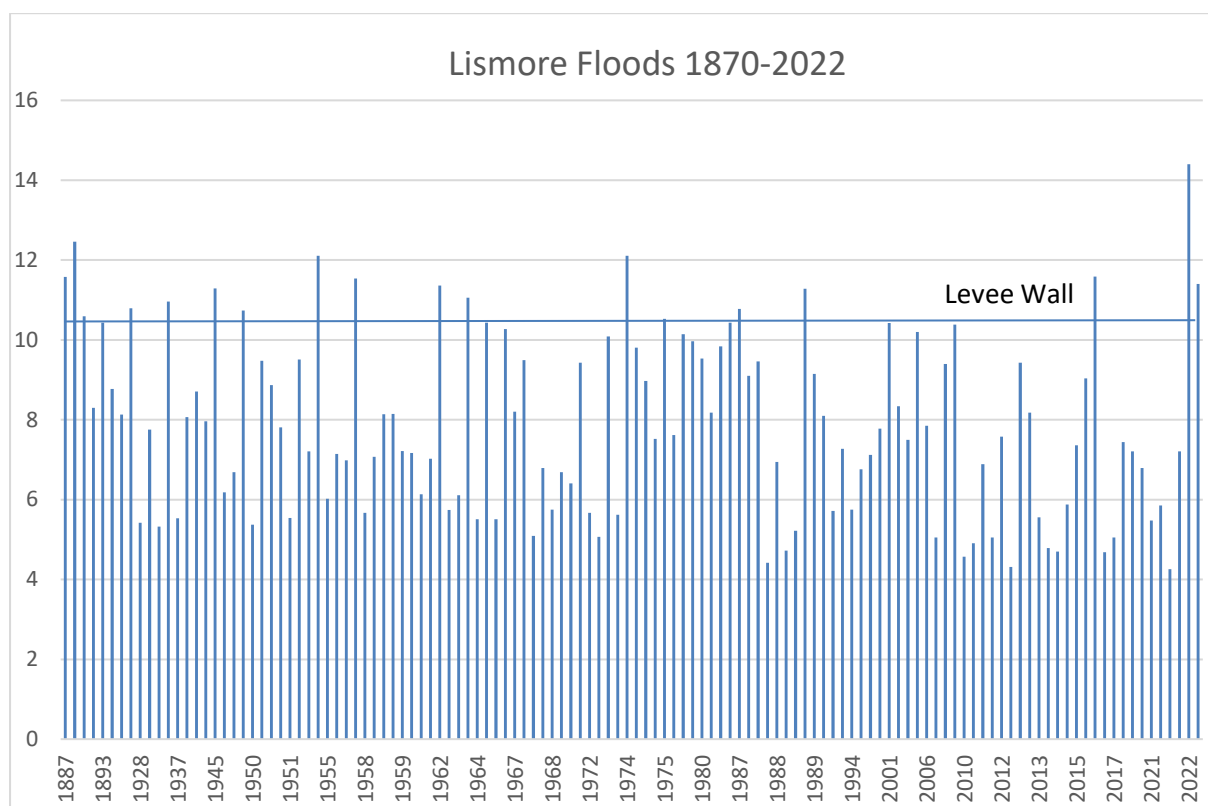


The Lismore CBD and the business centres of North and South Lismore are packed closely around the river junction. Residential areas and other commercial and industrial areas sprawl out from these centres and cover much of the local flood plain.

The reasons for this are historical. Early white settlers, most of them seeking cedar, found it convenient to locate near a river junction where cut logs could be floated downstream to Ballina.

With the benefit of hindsight, this was the worst place to centre what was to become a major city.

Over the past 152 years Lismore has endured moderate or major floods 74 times. That is almost one every two years.



Thirty-three of these floods are classed as major (above 9.7m). Six of these have been in the last 12 years. As predicted by climate scientists, they are becoming more severe and more frequent.

The flood of Monday 28 February this year broke all previous records topping out at 14.4 metres – more than two metres above the two previous record floods of 1954 and 1974.

In just 30-35 hours more than 1000mm of rain was dumped in the northern catchment. The water swept downstream, overtopping Lismore’s levee at 3am on Monday morning and

reaching it's 14.2m peak 12 hours later. It caught many businesses and residents by complete surprise, in part because they had never seen an event as ferocious as this and in part because of inadequate warnings from authorities. The SES evacuation order for the CBD and residents of Lismore was not issued until 1am on that Monday morning - just two hours before the levee overtopped.

Text from SES Sunday 27/2/2022 23.29pm

Levee expected to overtop about 5am tomorrow with river level exceeding 10.6m, may reach around 12.15m later in morning. Further rises are possible.

Text from SES Monday 28/2/2022 00.56am (1.5 hours later)

People in Lismore should evacuate NOW due to rapidly rising river levels. Leave now via New Ballina Road, Bruxner Highway and Dalley Street.

This monster flood was followed just four weeks later by another major flood that poured over the levee bank again and reached a height of 11.4 metres, the sixth highest on record. The flooding has been disastrous. People were trapped in their homes, many in roof cavities or on the roof itself, or clung to trees as the water swirled around them and continued to rise. People died. The SES was overwhelmed and were it not for the now famous tinnie army, Lismore's Dunkirk moment, many more lives would have been lost. While there had been earlier SES warnings urging people to prepare for flooding, none accurately anticipated the size of the event.

The reasons for this are unclear. Was it because some crucial rain gauges failed? Were the models used by BOM inadequate? Or has climate change just made the weather unpredictable? Flood mapping must be reassessed.

The inquiry will no doubt hear of heart-wrenching stories from residents and their children rescued from their homes in the early hours of Monday morning. Some were let off in unflooded parts of the city where they wandered in pitch black and pouring rain looking for shelter. Others were trapped and felt they may die.

Communications: In those two days of rain, many residents lost their mobile phone and landline connections, the NBN failed at crucial times with more than 80,000 people without a service [NBN Outages](#) (March 4, 2022), power was cut, and roads and bridges blocked. For many residents this continued for days and in some cases weeks. Information on what was happening was difficult or impossible to get.

Supplies: There was no petrol for many residents and the four major supermarkets on the flood plain were inundated. Up on higher land in Goonellabah the three supermarkets and petrol station that were above flood level were quickly stripped. They were unable to restock for days because of blocked roads into and out of Lismore.

The physical destruction of property was immense. Thousands of people living on the flood plain were made homeless with their houses destroyed or inundated, with many becoming uninhabitable. Some houses were literally swept off their foundations and moved elsewhere. Many houses were flooded for the first time ever.

Businesses in the CBD, North and South Lismore, the industrial estate and surrounding areas were obliterated. Many thousands of people became instantly unemployed. Some businesses struggled to hang on to key employees, with some limited government support, but longer-term prospects are bleak.

Service industries too were lost – medical centres, dentists, specialist surgeries, banks, insurance companies, solicitors, specialist clothing and retail shops, hairdressers, service stations, vehicle repair garages, cinemas and in downtown Lismore all supermarkets and grocery stores.

All the motels in Lismore were flooded as were cafes, restaurants, hotels, schools and TAFE. Infrastructure at NORCO, a major employer and major manufacturing industry associated with the dairy industry was destroyed, only shortly after a major refit.

The Lismore City Council lost or saw damage to millions of dollars of its key infrastructure including 90 per cent of its road and bridge network, footpaths, its sewerage system (that saw raw sewerage pour untreated into flood waters), the swimming pool, city hall, art gallery, the regional library, waste facilities and sporting fields.

Rural industries have suffered a crushing blow. Farmers have suffered dreadfully. Ruined pastures and crops, loss of income, a lack of insurance and livestock just swept away.

In the surrounding, quite densely populated, rural communities, property loss and road closures were immense. Land slips occurred everywhere, roads were blocked or collapsed completely, bridges and causeways severely damaged and residents in some cases were cut off for weeks. Some survived only because of helicopter drops of food and clean water.

Human costs too have been immense. While we will not know for some time the severity of the impact, people have been sent reeling. Many have lost homes, jobs, businesses,

community and most importantly a sense of hope. While some have recovered and are trying to rebuild their lives, bewilderment and despair is common. People just do not know what to do next. [To Stay or Go?](#)

After two months, there is no concrete plan and insufficient funds. With two major floods in four weeks and three in five years, residents are understandably fearful whenever there is a rain event.

Rescue and clean-up operations started, a little belatedly in many cases, and the ADF moved in to help. Community groups have responded magnificently with volunteers doing much of the work. Responding to requests from our local NSW member Janelle Saffin and community pressure, the NSW Government announced on April 19, that it would establish a Northern Rivers Reconstruction Corporation to coordinate a whole of government response. [NRRC](#). This is welcome and much needed.

How the NRRC approaches the challenges and what resources it can marshal, will be crucial to Lismore's future.

The 2000 temporary housing initiative announced by the State Government is also welcome. It will provide accommodation for homeless people for up to two years which will put a roof over their heads and give them time to evaluate longer term options. [Temporary Housing](#)

What happens now?

Lismore is at a crucial crossroad with no time to waste.

There is a choice. We could let market forces and lacklustre government aid determine the future - a minimalist approach. Or we could invest heavily in reconstruction and development that would revitalise Lismore, make it more resilient, allow it to adapt to the inevitable consequences of climate change and give residents a sense of hope.

A: The minimalist approach: Current losses to businesses, residents and the community are incalculable and ongoing. We have lost a great deal of our personal and community wealth and much of our income earning capacity.

Without a massive reconstruction effort, hope will dwindle, businesses will remain permanently closed and employers and workers will move elsewhere. This will cause more business closures, more job losses as a *negative multiplier* effect takes hold. This is already starting to happen and preventative action, if it is to be taken, must be swift.

Under this approach, Lismore risks becoming a stagnant backwater with a slowly declining population and economy with a large welfare dependent population. It has happened in other cities of Lismore's size around the world. [Cities in decline](#).

Without Government intervention, people living and working of the flood plain will face insurmountable challenges.

We know business and house insurance policies are either impossible to get or so expensive they may as well be non-existent.

According to a report on the insurance industry this year by Industry consultant KPMG: “Insurers continue to face a higher exposure to natural perils, such as floods, bushfires and cyclones. Modelling predicts the frequency and severity of these natural peril event trends will only continue to increase.” [Building a Sustainable Future KPMG](#)

Consideration is being given to extending the recent reinsurance pool that applies to cyclone affected properties in northern Australia - to all flood prone areas throughout the country.

The pool is backed by a \$10 billion guarantee from the Federal Government and starts in July this year. Under this scheme the government assumes a large part of the risk and in return premiums are lowered. This amounts to a taxpayer subsidy. But somebody has to pay. Given the recent losses in the northern rivers, the guarantee would have to be increased.

Banks too are examining their exposures. No doubt obtaining a mortgage from a bank for flood plain residents will become much more difficult. The risks of loss for these profit seeking businesses are too great.

The effect will be that residents and businesses will find it almost impossible to sell at a reasonable price. They will be trapped, unable to move as they wait anxiously for the next weather event.

B: Reconstruction Alternative.

A strong, well-funded Reconstruction Corporation such as the proposed NRRC appears to be the only way to prevent a long-term decline in Lismore. But it needs to act urgently – before more businesses close for good, people move away and others just lose hope.

It should be seen as an investment rather than a cost – a long term investment that will over the years repay its cost many times over.

A Reality Check: One factor over-rides all others. Any plan to reconstruct Lismore must be cognisant of the reality of climate change. To ignore climate change would be irresponsible, negligent, and bound to fail.

We cannot repeat the mistakes of the past. We must acknowledge that the future will be vastly different and more dangerous. It is too late to prevent climate change.

We must adapt.

Despite decades of warnings from climate scientists, global greenhouse emissions are still rising. Reports from the IPCC and elsewhere suggest that many countries are failing to meet

the greenhouse emission targets. According to the UN Secretary-General António Guterres in April this year:

“We are on a pathway to global warming of more than double the 1.5°C limit agreed in Paris. Some Government and business leaders are saying one thing but doing another. Simply put, they are lying. And the results will be catastrophic. This is a climate emergency.” [UN Report Here](#)

The Australian Government is still subsidising the fossil fuel industry to the tune of \$11.6 billion this year. This is 56 times the amount spent on the National Recovery and Resilience Agency. [AI Report Here](#)

This means climate change is not going away any time soon.

The climate event that hit Lismore on February 28 was not unusual except in the amount of water dumped in the local catchment. While popularly called a water bomb, meteorologists describe it as an atmospheric river, a stream of water vapour that flows through the atmosphere. As temperatures in the ocean and the atmosphere rise, evaporation will increase and so will the severity and the occurrence of these atmospheric water flows. One study predicts an 80 per cent increase in these events in Australia by 2100. [Report Here](#)

Adaption: Since it is clearly a given that climate change is upon us, we have no choice but to adapt. We cannot just try to recreate what we once had. It is too late for that.

We must acknowledge the flood plain is not an appropriate place to conduct permanent businesses or to live. Many people will resist this idea citing a variety of reasons. But some tough decisions will have to be made.

Without insurance these businesses and residences will continue to need vast community and government support every time it floods. Many would argue that if a viable alternative is available, this is unreasonable.

These alternatives could include land swaps, property buy-backs and a new CBD. Crucial Council infrastructure should not be rebuilt on the flood plain. Power and telecommunications must be made flood-proof.

The options open to the NRRC are numerous and ideas abound. We have tried some before. After the floods of 1974 and 1989, some changes were made.

1. New residential dwellings in the flood plain were effectively banned.
2. The government assisted with the purchase of land at Goonellabah to create a new commercial area.
3. New planning laws were introduced to limit growth in the floodplain.
4. A voluntary purchase scheme aimed at assisting people to move out of the seriously affected flood zones was also introduced.

5. Subsidies were given to allow house raisings in flood affected areas. (Despite this many of those raised houses were flooded in the February 28 flood).
6. After the 1989 flood Council decided to build a levee bank to protect the CBD. It was finished in 2005 and designed to prevent a 1 in 10-year flood. The levee is over-topped at 10.3 metres. This worked for several smaller floods, but the levee was breached in 2017 and twice in 2022 causing enormous damage. The decision to construct the levee was controversial at the time. It was argued that a levee to protect the CBD would make flooding in North and South Lismore worse, that it would cause environmental destruction and would lead to a sense of complacency amongst those inside the levee wall. Fresh calls to raise the levee wall are also controversial – for the same reasons. How high would the wall have to be? Another 4 metres higher? More than that?

Other mitigation measures are possible but it is unlikely they would prevent the massive destruction that occurred with the February flood.

Conclusion: The solution to me appears to be adapt and retreat – like many other communities around the world are being forced to do.

The CBD is the heart of any city, but it cannot thrive when it is constantly flooded. It should be moved to higher ground. Government should allow this to happen.

Houses and other businesses on the flood plain should also be encouraged to leave. This should be voluntary. It is crucial that there should be a real choice – on that is financially attractive, especially for lower income residents. Consecutive governments have approved developments in the flood plain. They have been happy to collect rates and taxes from those who are situated there. Governments bear a large responsibility to facilitate the change.

It will not be easy. There will be short term pain but the longer-term benefits will be immense.

Extensive consultation with the community is vital. It cannot be done without community support.

Ends

- **David Tomlinson** is an economist and financial journalist. He was raised in Lismore, went to school at Richmond River High and experienced regular floods. He left Lismore in 1966 to study economics and work with the Reserve Bank of Australia. He returned with his family to the area in 1989. He served nine years as a Lismore City Councillor at a time when the flood levee was built. He lives in Modanville, a flood-free suburb of Lismore.