

From:
To: [Flood Inquiry](#)
Subject: Northern Rivers Floods
Date: Wednesday, 6 April 2022 5:27:30 PM
Attachments: [Broadwater to exit 25km.PNG](#)
[Richmond River Choke Points and extra exit for Ballina.png](#)
[Richmond River Floodplain issues and solutions.png](#)

Hi,

I have lived in various North Coast towns over the years and experienced flooding events. There is one thing in common with every major flood - the water from the catchment cannot escape to the ocean fast enough. Man has created, in his wisdom, perfect flooding scenarios. Any flood mitigation works upstream will always be a waste of time and resources, as the main cause of the upstream symptoms are never attended to, which are downstream.

There are several reasons the water can't escape fast enough and these are my observations for the Richmond River which will be similar for the other rivers:

1. Nature's original design has been altered at every river exit, the Richmond has gone from a very wide area originally, over 1.5km at the mouth to narrow man made walls. Evans Head does not provide any flood relief suitable in this catchment area either, and it is a very narrow short stream with a silted up river and narrow silted up walled exit.
2. The exits are walled and narrow.
3. The exits are silted up with sand and shallow. They have not been dredged in a very long time.
4. There are man-made and natural choke points in the river systems. These bottlenecks act like a funnel effect, where once the flow maximum is achieved, it backs up and forces flooding upstream. The chokes simply won't ever let the volume of water to pass through them that it needs to, for successful flood mitigation.
5. As the Richmond is tidal all the way to Casino (over 300kms) and the Richmond/Wilsons almost the same to Boatharbour beyond Lismore, there is tidal influence that comes into play as well. This is witnessed by very little change between high and low tides during the flooding events. High tide forces the water to back up, the low tide allows the water around the exit to get away at lower tide, but the upstream flow quickly fills everything in behind while it is trying to escape to the ocean.
- 5a. Notwithstanding the meeting of the Richmond and Wilson's at Coraki as the 1st major bottleneck, which could be helped by making the Wilsons a direct line into the Richmond taking out the bottleneck curve northwards into the town of Coraki. This would really help Coraki itself.
6. The first main choke point is the Broadwater channel. This does not handle the amount of catchment floodwater flow it needs to, to provide flooding relief for upstream. This is a very narrow exit for the whole catchment. Coraki, Woodburn and Broadwater areas remain flooded even as the upstream floods clear. The water can't get out fast enough. Each high tide affecting the whole river system. Attached is a photo of the Feb 2022 flood event. We can clearly see where the problem is at Broadwater. Water still has a 25km journey from Broadwater to exit at Ballina, with more choke points to come into play.
7. The next choke point is Wardell, very narrow. Take a look on google maps shot I have provided.
8. The next choke point is Burns Point, very narrow. Pic provided.
9. The last choke point is the exit at Ballina, narrow and silted up.

Is it any wonder this area floods like it does?

So how would we go about providing more outflow downstream? It is simple, there needs to be more exits to the ocean. ONE exit via Ballina is never going to provide what you want to see as flood relief upstream in major flooding events. Ballina island floods when these events are on, the water can't get away quick enough.

1. Something needs to be done at Broadwater to allow more flow. Once this is achieved, then,
2. An exit to the ocean immediately after Broadwater can be achieved, eg walled exit starting from Goat Island. Another could be further north as per my diagram.

Having ocean exit/s after Broadwater will take the pressure off the further 3 choke points downstream, namely Wardell, Burns Point and the narrow silted up exit at Ballina.

IF NOTHING is done from Broadwater downstream, then why does anyone expect a different result in major rain events upstream? It is NOT going to happen. People have been working at flood mitigation in Lismore for a very long time, and it is NOT successful, why? Paying millions for reports. Implementing what they think will fix the issue. All the while ignoring downstream in a huge tidal system.

I am hoping that someone with common sense can 'see' the issues I have raised here. It isn't rocket science. Water flows downhill to the lowest point, then when it can't flow it spreads out filling any gaps. Narrow choke points restrict the flow required and there are more than one for the Richmond/Wilsons system.

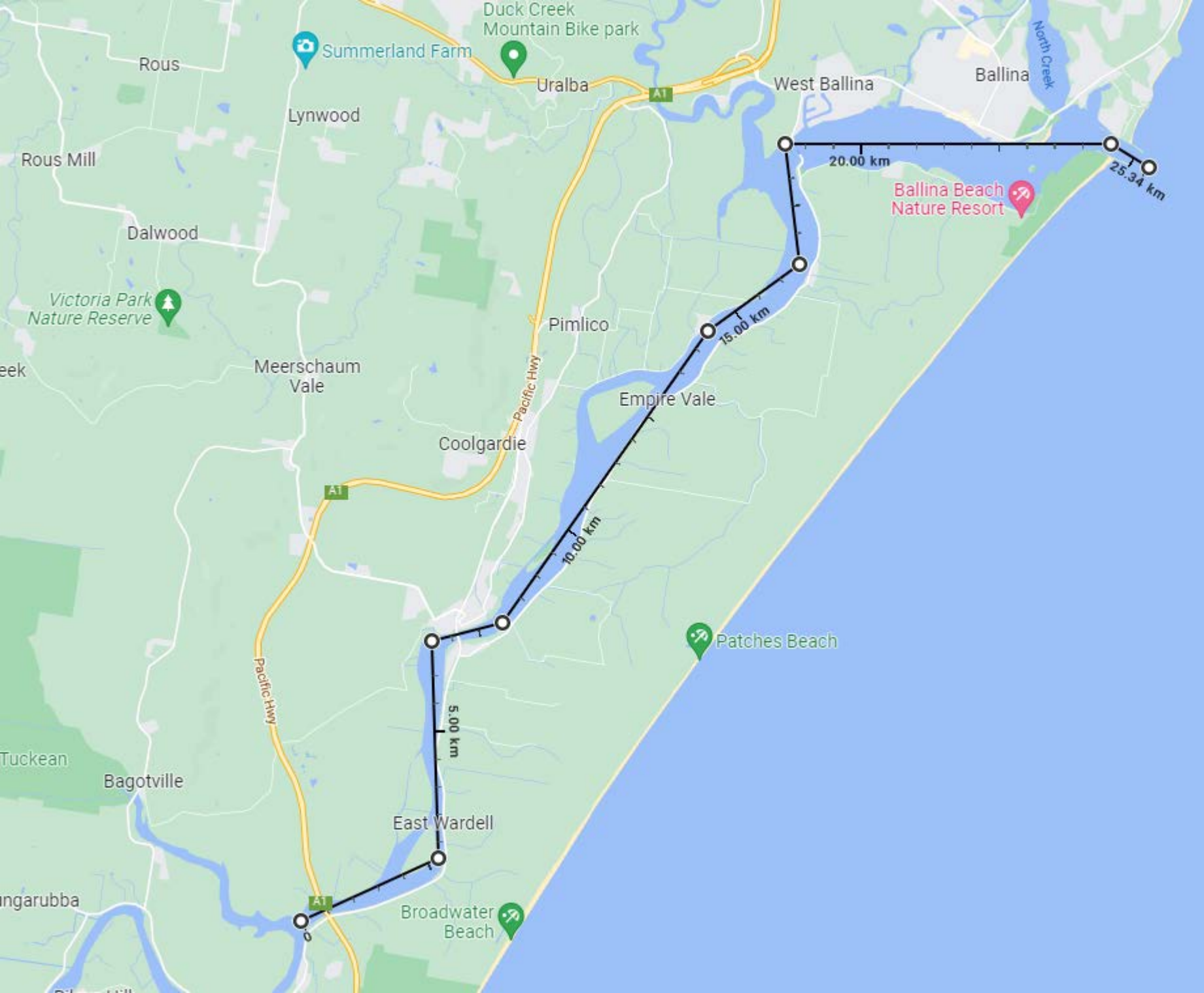
If anyone good at modelling makes a model of this area and then tests the water flow, they will see why this area floods, the huge catchment flow in, is more than the catchment flow out can handle. Bingo, flooding. Look at the photo, it says it all.

You will notice after studying the Lismore flood level history attached, it has always had regular high level floods. Some of this area used to be known as 'The Big Scrub' where it was raped for its timber and just .5% of it remains. Just maybe the natural rainforest used to have these high rainfall events and could manage them, due to the eco system being intact for many thousands of years. Man MUST take responsibility in creating these flooding events.

Man has changed the environment, so man must adapt to his new creation and find solutions.

Yes, this will take time and money. The just rewards for mans inability to foresee the results of his actions. If nothing changes, the very same results in future years flooding events can be expected. Lismore and the Northern Rivers low lying communities are prone to flooding events as history proves.

Regards,



Summerland Farm

Duck Creek Mountain Bike park

Rous

Uralba

West Ballina

Ballina

Lynwood

Rous Mill

20.00 km

Ballina Beach Nature Resort

25.34 km

Dalwood

Victoria Park Nature Reserve

Pimlico

15.00 km

Meerschaum Vale

Empire Vale

Coolgardie

10.00 km

Patches Beach

Pacific Hwy

5.00 km

Bagotville

East Wardell

Broadwater Beach

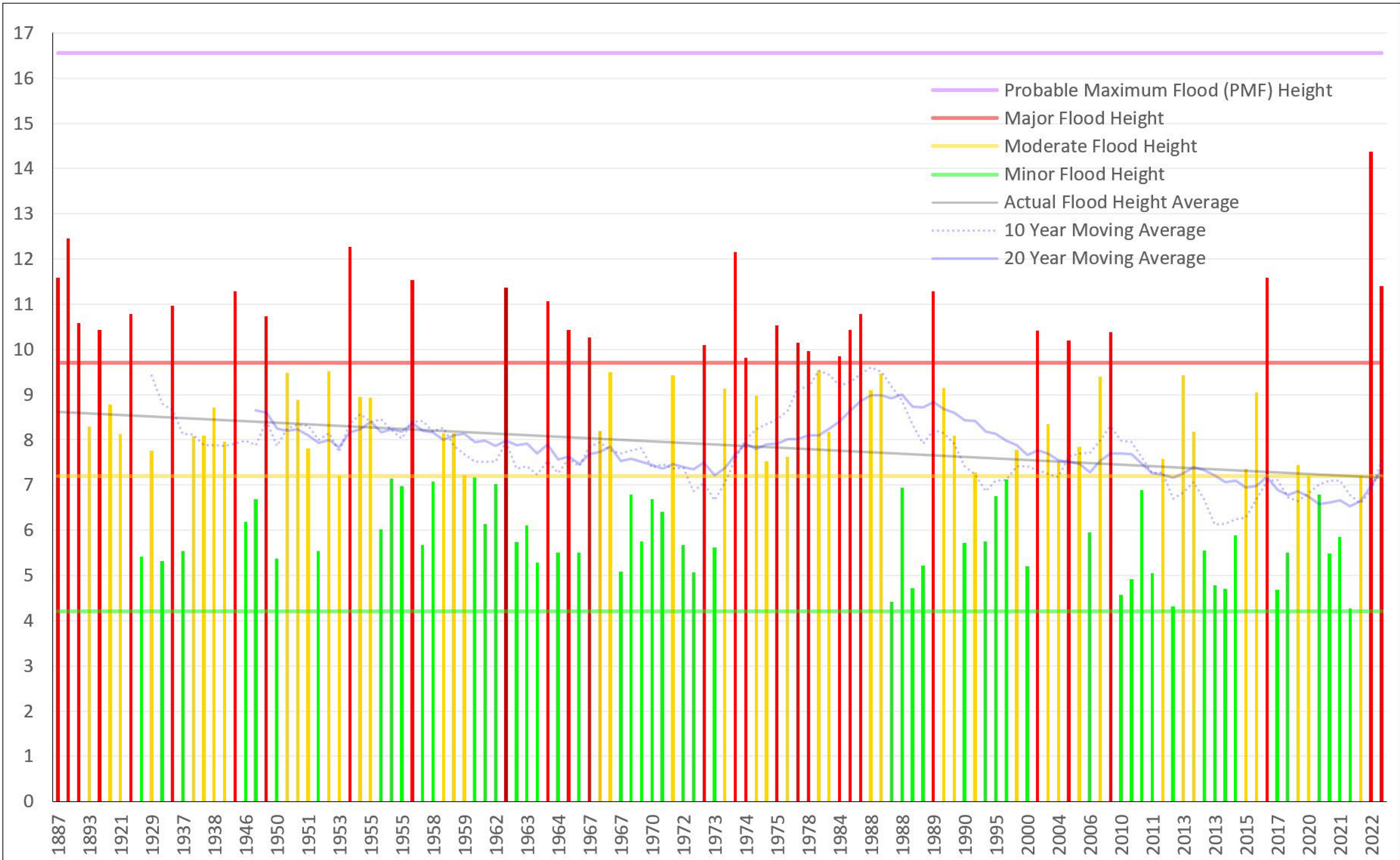
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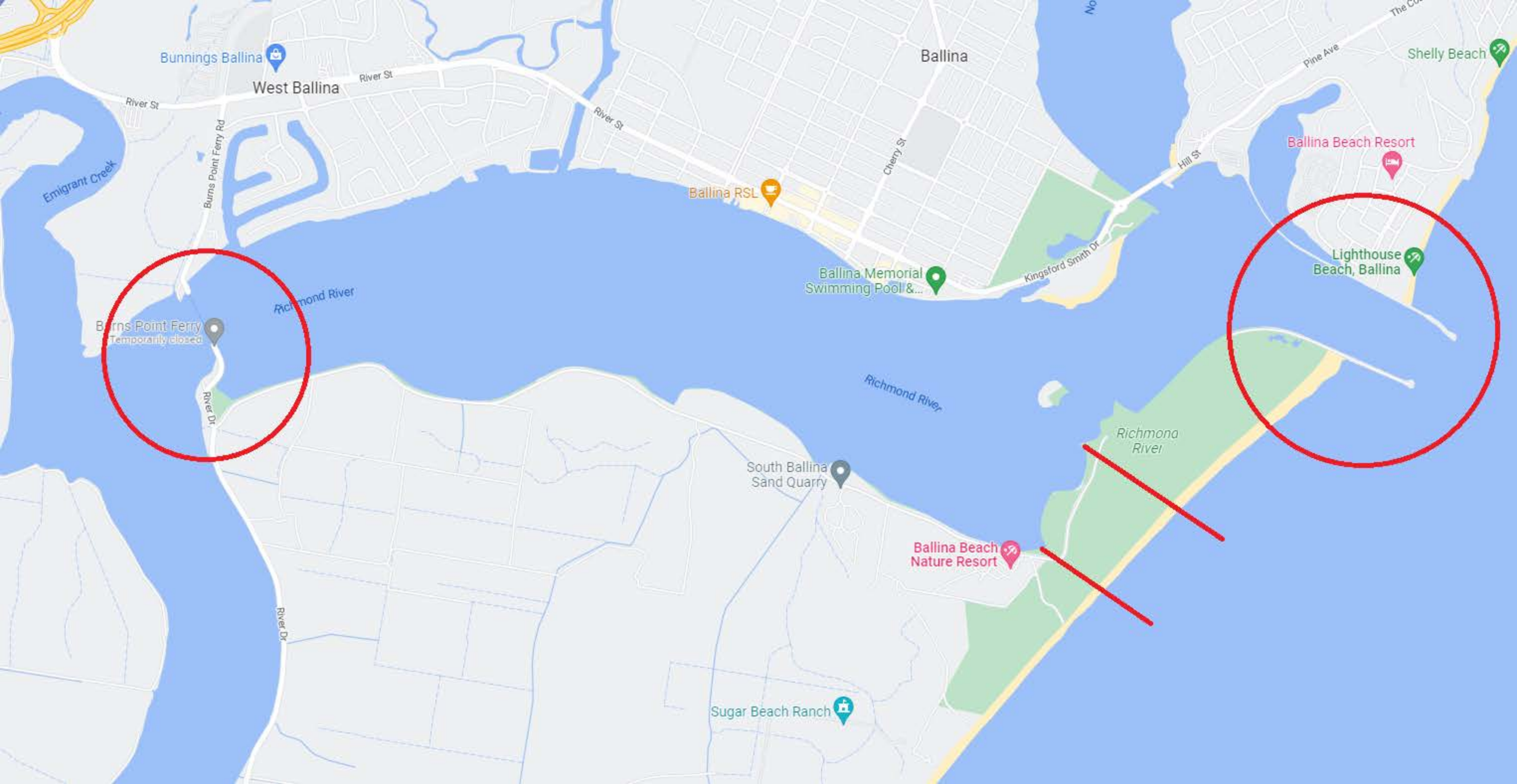
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Lismore Flood Levels - Chart

Last updated 4 April 2022 -

- Wilsons River at Lismore (mAHD)





Bunnings Ballina

West Ballina

Ballina

Shelly Beach

Ballina RSL

Ballina Memorial Swimming Pool &...

Ballina Beach Resort

Lighthouse Beach, Ballina

Burns Point Ferry
Temporarily closed

South Ballina Sand Quarry

Ballina Beach Nature Resort

Sugar Beach Ranch

River St

River St

River St

Cherry St

Hill St

Kingsford Smith Dr

Burns Point Ferry Rd

River Dr

River Dr

Richmond River

Richmond River

Richmond River

Emigrant Creek

No

The Co

Pine Ave

Another exit could be achieved here.

An exit to the ocean can be achieved from Goat Island approx 500mtrs to the ocean.

No exit via Evans Head

All catchment water must go through the narrow Broadwater Channel

Highway flooded

