

**From:** [NSW Government](#)  
**To:** [Flood Inquiry](#)  
**Subject:** Floods Inquiry  
**Date:** Saturday, 23 April 2022 12:07:34 PM

## Your details

**Title** Mr

**First name** Beau

**Last name** Ravn

**Email**

**Postcode** 2480

## 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** After having my home and studio in Ewing St, Lismore inundated to a depth of over 4m, I am writing to you with a request for comment on the following flood mitigation concept proposal which, if deemed plausible and worthy of further exploration, may result in eliminating the risk of significant flooding in the Northern Rivers (as well as other regions) completely. I realise that

there may be factors that I have not considered that might make the proposal impossible to achieve, however, it does appear to me (at face value, not being a hydrologist) that it is worth exploring. I greatly look forward to your reply and, hopefully, to continue researching the concept in greater detail.

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## **Terms of Reference (optional)**

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

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### **1.1 Causes and contributing factors**

Flooding occurs when the rate by which rain falls in a catchment area exceeds the rate by which the river system in that catchment would normally be capable of draining the excess rainwater out to sea. As such, to remove the possibility of flooding, either the amount of rainfall over a given period needs to be reduced (not plausible), or the rate by which the excess rainwater drains out to sea needs to increase. This, I believe, is not only plausible but may have other additional benefits as well, with very minimal detrimental effect on the environment.

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### **1.2 Preparation and planning**

The proposal involves inserting high-capacity storm-water pipes inside the rivers and major waterways (i.e. the Wilsons and Richmond Rivers and the end of Leycester Creek) that continue right out to sea beyond the breakers; then adding pumping stations at intervals along these rivers that automatically activate when river levels reach a given height (say, 9.5m in Lismore, for example). The core concept is simply to draw in and accelerate the excess rainwater from within the rivers themselves out to sea at a high enough rate to maintain the river level at the given height without actually affecting the flow-rate of the rivers under normal conditions.

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### **1.3 Response to floods**

The important factors here are that the only water we are working with is the EXCESS water above a certain height/depth (i.e in the case of

the historic March 2022 flood, that would be around 4.5m, not the entire 14.4m). Since that excess water is being drawn into containment pipes and ejected out to sea, it should be possible to do that without unduly affecting the normal flow of the rivers themselves. Likewise, we are not attempting to drain the entire catchment area after a major flood, we are simply managing the river heights over a period of time as the water-levels begin to rise during an extreme weather event. Needless to say, at the peak of a major weather event, this will require some very big pipes and very powerful pumps, both of which certainly exist.

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**1.6 Any other matters**

Other benefits to this concept are that once the water is contained inside pipes, it is under controlled conditions and, as such, may be used to generate its own power for the pumping stations (and possibly more); be partially diverted into cleansing/storage facilities for water security in times of drought offsetting the need to build dams; be diverted to inland towns and waterways where it may be needed, and much more.

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**Supporting documents or images**

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**Attach files**

- [Ewing Street studio flood 2022.jpg](#)
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**MARCH 2022 FLOOD LEVEL AT PEAK**