

## Draining Australia

There is no doubt that Australia is turning into a drain. Bit by bit we accelerate the passage of our precious water to the sea. The result is a much drier continent that experiences much bigger floods.

Take this view from western NSW. Many aboriginal people were massacred here. There is a memorial just near the bridge. It seems logical that given the name is Hospital Creek there was probably a creek here. Given that there were many indigenous people living in the area it is logical to assume that there were trees and billabongs. In other words the water was held in the land.



Back up the river about 1500km is Toowoomba. Toowoomba means swamp. On 13<sup>th</sup> January 2011 the city was trashed by a wall of water. The storm that caused the event was perhaps unprecedented, perhaps a manifestation of climate change. However, the rate that the storm reached the city was a great deal faster than it would have been a few decades ago. Farmers in the area note that



creek rises occur in about a quarter of the time than they did forty years ago. It is not rocket science. The equations are simple.

Three days prior to that Grantham was devastated by horrific flooding. Damage was enormous, loss of life considerable and tales of bravery abundant.

We know that the power of flood events is determined by channel shape, roughness and length. If you want to make floods bigger you:

- Remove vegetation so the water flows faster
- Straighten the creeks so it gets to the end quicker
- Channelize the creeks to reduce the hydraulic radius

There is a plethora of information such as hydraulic equations that irrefutably support this and actually quantify the effects on power and velocity. Of course this increases erosion which is confirmed by water quality sampling results.

Any competent engineer can tell you it would be a pretty dumb thing to do. In the wake of the Toowoomba and Grantham disasters it is important that the land be more like a sponge. Slow the flow.

So what happened?

Before:



After:



Vegetation Management



Bugger the platypuses, bugger the trees, bugger the waterholes.

**Dumb? Yep.**

**That's water, simple concepts not understood. Ignorance reigns.**

**Climate change?**

**What is the worst thing we can do? Extract coal and coal seam gas. What are we doing? We are increasing extraction of both as fast as we can. We are doing it against rising community action demonstrating that this is not what we want.**

**DUMB AND DUMBER!**