



Graeme Hill



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## FLOOD SUBMISSION

Whilst I am only a retired ex Aeronautical Engineer, it amazes me how Hydrologists, Engineers and Flood experts get things wrong. I have seen and been in many floods in NSW, VIC and QLD and was isolated for 3 days in 1974 by an incorrect weather forecast at the time.

In Ipswich in 1974 the floods were devastating; however in 1992/3 another flood in some areas was worse. In Bundamba places were flooded that had never been flooded before.

It took a lot of figuring out by Engineers but and eventually it was found the raising of the railway was the prime cause. In actual fact the railways had cost cut and left a minimum culvert/ bridge area under the railway line over Bundamba Creek. This acted like a DAM wall and the water couldn't flow as fast as before, therefore it backed up flooding a bigger area.

Anyone with any sense knows if you partially block or limit the flow of water it will rise. Who is responsible? In my opinion it is the Local Council, State and Federal Governments and especially the Engineers and experts they use to evaluate plans and oversee construction. They think they know it all.

### LOCAL GOVERNMENT

Allowing residential and Industrial building on 1 in 100 year flood areas. Also allowing building up of this land without ensuring any major water runoff works and creek widening occurs. These buildings and new roads etc do 2 things;

1. Slow the natural or previous flow of Flood Waters,
2. Increase the amount of runoff of water as there is a lot less ground saturation. In some cases the rain collection runoff area is actually increased, and
3. **GREED:** I feel a lot of councils are allowing development to get the extra rates and fees. Just how the Ipswich Council allowed the Riverside building along the Bremer River beats me, I can only think of "MONEY", "MONEY".
4. Filling of flood prone land sometimes up to 2 metres high, the Gold Coast is notorious for this.

**NOTE:** There have been numerous studies done in Australia and around the world on why flooding has occurred after new housing estates were built on low flood prone areas. You don't have to be a rocket scientist to figure it out.

### **STATE GOVERNMENT**

1. **BRIDGES:** For any road or rail construction where insufficient Bridge length and height of Bridges over Creeks and Rivers. In my personal opinion the span over any river or creek should be 2-3 times its width, and
2. **CULVERTS:** Inadequate allowance of additional culvert areas under raised roads and railways where flood plains and known floods occur. Without this, these then become Dams and slow the flow of water.
3. **WIVENHOE DAM.** In my opinion the keeping back of water and not allowing early release also contributed to the flooding, experts agree on this.

### **FEDERAL GOVERNMENT**

1. **HIGHWAYS and BRIDGES:** For allowing construction of Highways and Roads where insufficient Bridge spans (length) and height of Bridges over Creeks and Rivers exist. A Prime example is the building up of the Ipswich Highway, through the Rocklea area,
2. **CULVERTS:** For allowing inadequate Culverts constructed under roads where there used to be flooding. There should be one every 10 metres where a road is being built above its previous height to allow water to disperse.
3. **FEDERAL FUNDED ROADS and HIGHWAYS:** Where these have been raised because of previous flooding, thereby creating a Dam effect of the flood waters.

### **ENVIRONMENTALISTS**

These groups sometimes in conjunction with Local, State and Federal Governments go and plant hundreds of trees along the banks of these rivers and creeks in the name of regeneration. These also act as a barrier restricting the flow of water and thereby contributing to the flooding.

I always remember years ago in Sydney where the creek near Riverstone in Sydney flooded after the building of a massive Housing estate close by. They paid a University Professor over \$200,000 to investigate why?

The conclusion was; the new Houses and Roads built increased the run off of rainwater into the creek and lessened the natural absorption of the land. There were no studies or work undertaken to increase the run off capacity into the creek. The creek could not take the increased run off, resulting in heavy localised flooding.

## CONCLUSION

I believe the extent of the floods could have been or be minimised by;

1. **BUILDINGS IN FLOOD PRONE AREAS:** These should be constructed on stilts and where there are walls required these walls be in alignment with the water flows so not to act as a dam,
2. **LOCAL GOVERNMENT:** Greed of increased rates, overcomes common sense. Filling in flood prone land and increasing water runoff from new roads and roofs, is not taken into account for drainage and just causes another problem downstream from these constructions. Councils should be ensuring water run off from new estates is kept to a minimum and wherever possible widen, straighten and deepen waterways,
3. **DAM MANAGEMENT:** Releasing increased waters where Dams reach so called 100% capacity in conjunction with a Disaster management team and not just hold back water for greed, and
4. **FEDERAL and STATE GOVERNMENTS:** Review the requirements for Bridges and Culverts where know flooding has previously occurred.

Yours for Australia

  
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