

Jocelyn Bailey Flood Commission Inquiry Submission

I am a stud cattle producer on a 20 hectare property located on the mid Brisbane River (between Wivenhoe Dam & Mt Crosby Weir) at Pine Mountain. I have lived on this stretch of the river for 28 years.

It is my belief that the Wivenhoe Dam operators have mismanaged the Dam (and thus the mid Brisbane River) since its construction was completed. This continual mismanagement has culminated in the enormous amount of irreparable damage to the mid Brisbane River from the January 2011 Flood.

Background

Just after Wivenhoe Dam was completed a cyclone filled it very quickly (it was predicted to take 3 years to fill). Shortly after in April 1989 Cyclone Aivu was predicted & the Dam operators released water from Wivenhoe Dam to reduce the flood risk posed by a full dam. For 10 days water was released & those living in the urban areas of Karana Downs/Karalee complained due to Colleges Crossing being inaccessible. The Dam operators reduced the water release very quickly I remember standing on the bank and you could actually see it going down (around 6m in a day). The riverbanks collapsed due to hydraulic drawdown (this is when there is insufficient time for water in the banks to dry out & thus the weight of the water drags the bank down). The damage was extensive ... hectares of land slumped into the river from Wivenhoe to Mt Crosby Weir carrying pumps, fences, trees & even a tractor etc. The Dam operators denied all responsibility although we were told a Manual was written 'so the same thing could not happen again'. It should be noted that the gradual decrease of water levels after a natural flood allows water retained in the riverbanks to dry out slowly thus preventing riverbank slumping.

Since this time I have spent considerable time & money on repairing the damage caused by this event. I have also been involved in promoting, to landowners along the river, erosion control to improve water quality in the mid Brisbane River (ie Brisbane's water supply).

The mid October 2010 flood caused by the 700,000 megalitres water release caused significant riverbank slumping on this property (**refer photo 001**) & other properties along the mid Brisbane River. The Mid Brisbane River Irrigators (of which I am a member) had meetings with Seqwater in late 2010 in relation to their water release pattern causing riverbank slumping. However Seqwater said they were unable to alter this pattern as it is set by the Manual.

On the 22nd December 2010 I emailed [REDACTED] (Seqwater) expressing my concerns that the water release occurring at that time was going to be dropped rapidly which would cause riverbank slumping. An exchange of emails followed with the main reason being 'opening some of the crossings for the Christmas period'. (**Refer attached emails**). The obsession by the Dam operators with keeping Colleges Crossing open is bizarre as it is little more than a causeway. To do so at the expense of riverbank slumping suggests their priorities are wrong. Slumping causes sediment to enter the River which reduces water quality. Seqwater have a vested interest in this in relation to minimising water treatment costs downstream at the Mt Crosby Weir Water Treatment Works. Incidentally when Wivenhoe Dam was being planned it was promised that all low level bridges would be rebuilt to a higher level which they never were.

The January 2011 Flood

As a recipient of emails from [REDACTED] (Seqwater) it was obvious that the actions of the Wivenhoe Dam operators increased flooding rather than mitigating it. By holding levels above 100% FSL in the weeks preceding the event (despite predictions of significant rain) then not releasing greater volumes from Friday 7th Jan onwards despite reports of significant rain in the catchment and massive inflows into the Dam, the inevitable emergency release to ensure the structural integrity of the Dam resulted. It was this release which put a flood peak onto an existing flood and created a major flood.

The resultant high velocity of water caused the immense damage downstream. Damage caused by the 1974 flood was minimal compared to this. Old man bluegums which had withstood the 1974 flood were torn out & many were carried away by the sheer force of the water. Fences which withstood floods since 1974 were torn away or disappeared entirely (**refer photo 002**).

In keeping with the Dam operators previous practice, the drain down phase of the 2011 flood was far too rapid. A natural flood of this magnitude would take weeks to recede gradually. Riverbank slumping occurred on a major scale along the entire 60kms of the mid Brisbane River.

To date more than 60% of the riverbank on my property has slumped (**refer photos 003 & 004**). The slumps have carried large trees and the pump site (**refer photos 005 & 006**) into the middle of the river. Therefore it is not possible to pump water for irrigation or stockwater until the site is repaired in winter when conditions are drier thus safer. Cost of riverbank repairs to date is \$10,000. With further water releases of the same rapid pattern more damage will occur.

The heavy suspended sediment load which the river now carries will be unlikely to reduce for decades due to the continuing riverbank erosion process now set up. The resultant poor water quality will require continuing expensive treatment to fulfil the requirements for urban water supply. Also the effect of long term sediment deposition on the marine ecosystem of Moreton Bay (parts of which are a Marine Park) will be tragic.

The Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam & Somerset Dam Revision 7

- Section 1.1 outlines the primary objectives of the procedures contained in the Manual. Why is the river system given the lowest prioritisation ie the 5th and last objective which states 'minimise impacts to riparian flora & fauna during the drain down phase of the Flood Event'.
- Section 3.6 states 'when determining the time interval between successive gate closures consideration should also be given to reducing potential bank slumping. Rapid draw down of stream levels where banks are saturated should be avoided if this can be managed within the other flood mitigation objectives'. The Dam operators are in clear breach of the Manual by ignoring this objective.

- The requirement for stored floodwaters to be emptied from the dams within 7 days of the flood event peak passing through the dams results in the water release being concentrated into a short period of time. This creates a higher peak, stronger flow & rapid draw down compared to a natural flow. The draw down phase should be tailed out gradually over a number of weeks not 2 - 3 days as at present.

Seqwater's 'Sustainability Charter' 17th Sept 2010

The Sustainability Charter states that Seqwater commit to:

1. work within the restorative capacity of our environment':
 - minimise our environmental footprint
 - work in partnership with others to restore the natural productivity of our catchments
 - scale what we do to the adaptive limits & productive potential of each ecosystem
2. nurture confidence in the strength of our communities:
 - communicate openly to create active & knowledgeable community partnerships
 - respond to communities in ways that respect & encourage the value they place on water

By their actions the Wivenhoe Dam operators have ignored the Sustainability Charter. They are environmental vandals who have not involved stakeholders in their decisions.

Conclusions

In summary Wivenhoe Dam should be used like a buffer to enable long, slow water releases with an extended tail thus replicating a natural flow/flood and preventing riverbank slumping. The 'turn tap on, turn tap off' engineer's mentality treats the mid Brisbane River like a concrete drain (which after the Jan 2011 flood it now resembles). The Manual should be reviewed to protect the fragile natural ecosystem of the mid Brisbane River, thus safeguarding its water quality. Seqwater should undertake to fulfil the aspirations of their Sustainability Charter by resolving the contradictions with the Manual and their modus operandi.

I would like to add that [REDACTED] did an exemplary job during the flood and I believe his emails contributed considerably to the fact that no lives were lost in the mid Brisbane. He is a hero

Jocelyn Bailey

[REDACTED]
Bachelor Regional & Town Planning

In 2010 this property was the recipient of a City of Ipswich Award for Excellence in Environment for environmental work particularly on the Brisbane River riverbanks

Master Scuba Diver [REDACTED]

Enclosures

1 – Photos (01 – 06)

2 – Emails

Photo 001 – Oct 11 Riverbank Slump



Photo 002 – Jan 11 Fence & Tree Destruction



Photo 003 – Jan 11 Riverbank Slump



Photo 004 – Jan 11 Riverbank Slump



Photo 005 – Jan 11 Pump Site Riverbank Slump Beginning



Photo 006 – Jan 11 Pump Site Riverbank Slump After



Emails from SEQ Water:

To: [REDACTED]
Subject: FW: Releases from Wivenhoe Dam.

From: [REDACTED]
Sent: Thursday, 23 December 2010 11:28 AM
To: Al & Jos
Cc: [REDACTED]
Subject: RE: Releases from Wivenhoe Dam.

Jocelyn,

My expectation is that they would have an idea of the potential outcomes of the release strategy. The major consideration is opening some of the crossings for the X-mas period if possible.

A minor change has been made to the schedule. This should allow Burton's & Kholo Bridges to open, but not the others. The gate release will not cease completely until 3PM Friday – not sure when College's Crossing will open.

Regards,

[REDACTED]
Engineering officer
Queensland Bulk Water Supply Authority *trading as* Seqwater



[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

From: Al & Jos [REDACTED]
Sent: Thursday, 23 December 2010 10:34 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Releases from Wivenhoe Dam.

[REDACTED]
Thanks for your reply. Are they aware of what their actions are causing? Has this been conveyed to them as per our meeting discussions?
Jocelyn

From: [REDACTED]
Sent: Thursday, 23 December 2010 7:25 AM
To: Al & Jos
Subject: RE: Releases from Wivenhoe Dam.

Jocelyn,

[Redacted]

Subject: Releases from Wivenhoe Dam.

Good afternoon MBRI members and others,

We commenced gate closing procedures at 4PM today. This process is expected to take approx 24hours unless further rainfall occurs in the catchment.

All mid-Brisbane River crossings are expected to be open by Friday morning.

Regards,

[Redacted]

Engineering officer
Queensland Bulk Water Supply Authority *trading as* Seqwater



[Redacted]

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