Topic for discussion

Alternate Overflows for Sommerset and Wivenhoe Dams

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Neither Wivenhoe nor Sommerset Dams have alernate overflows that bypass the Brisbane River. Should overflows exist directly to the sea be created to carry excessive water during extreme events, metropolatin flooding would be reduced due to the reduced flow down the Brisbane River. Overflows such as via ducts and tunnels could be built from the dams and down the river as low as around Mt Crosby weir that are designed to carry excessive flows directly to the sea or other inland locations.

An Overflow for Sommerset Dam

Besides overflowing into Wivenhoe, Sommerset Dam has no overflow. It may be feasible to build an overflow to South Pine Dam or to the Caboolture River or directly to the sea. Back-flooded creeks may provide shorter routes to alternate flow paths to the sea or other inland locations.

An Overflow for Wivenhoe Dam

A tunnel through the range near Mount Glorious directly to the sea should be considered to create an overflow for Wivenhoe. The tunnel could be used for traffic during non extreme weather events.

Pumping water out of the Dams

Water can be pumped out of Wivenhoe Dam. Existing installed pumps at Wivenhoe pump-storage facility can pump ~10% of the Wivenhoe spillway flow. It may be possible to use these pumps during peak times to lessen the flow from Wivenhoe into the Brisbne River. The pumps pump water from the Wivenhoe Dam to Splityard Creek but there is no overflow that bypasses the Brisbane River. Where could the overflow go to ?

In adddition, There are other pumps that remove water from Wivenhoe Dam such as the Tarong pipe line and recently installed pipe line to Toowoomba. Could these pumps have been utilized better ?

Ipswich Bypass

Is a bypass (via ducts and tunnels to the sea) created for Ipswich feasible ; given that the Bremer River backs up due to the flow restriction caused by the low flowing gradient of the long and winding Brisbane River ?

SUGGESTED INTERIM INSTRUCTIONS FOR WIVENHOE

Step 1. Understand the tides and weather are caused by the Sun and the Moon and to a lesser extent, the planets. Without the Moon, Earth would be boring and conditions would be highly predictable, so watch the Moon and its 18 year cycle (Note: not 20 years, 50 or 100 years.)

Step 2. Operate the Dam between 1/3 and 2/3 normally.

Step 3. Reduce to 1/3 when entering the storm season (Refer Energex and Ergon as they monitor the storm seasons)

Step 4. Release water from Wivenhoe to match the low and lower tides. Don't hold water then release it on a full moon or new moon as was done twice in December 2010, and on 20/21 January 2011.

Step 5. Release water as soon as possible. Don't delay. Twice there were several days of low tide opportunities and fine days, but for some reason the water was held back and released only when heavy rain and flash flooding started (this was really bad and by definition "Out of control" operation)

Step 6. Only fill the Dam to 100% at the end of the storm season.
Do not hold at 100% ; and Not Now !

Naturally, the above is subject to local rain conditions. Expect weather condition to worsen to May 2012 when the planets align.

Other considerations: On this occasion the Bremer was still and the Brisbane River caused the Flooding (No or little flow). Sometimes the rain is more in the Bremer catchment and the Bremer really rages. This needs consideration also.

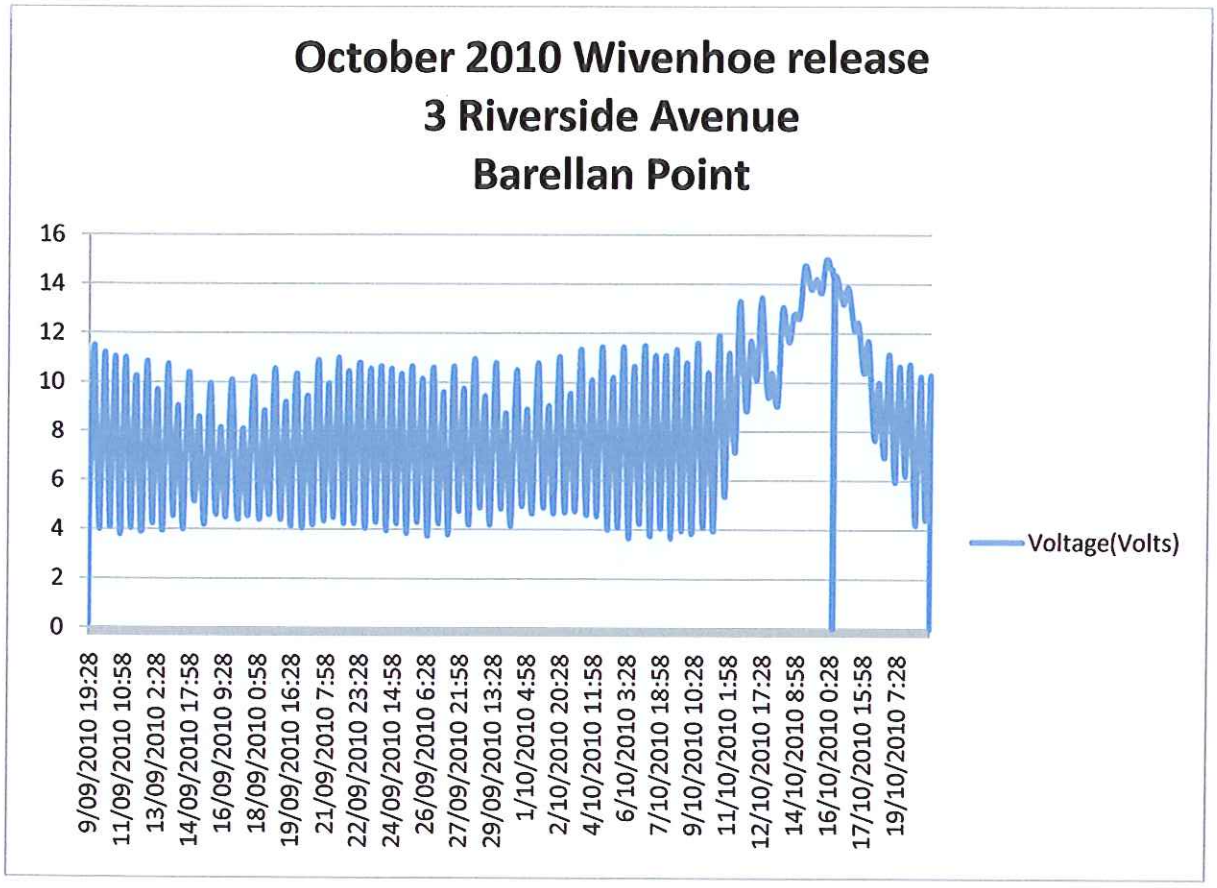
Opportunities for further work: There are plenty of opportunities for more dams and hydro stations including the Lockyer flows, The Boonah Dam project , Maryborough, and North Queensland areas. (eg the Traviston Dam, and Tully Millstream project could be looked at sensibly now the Greenies have had their face slapped by mother nature)

Maybe a tunnel to the ocean may prove cost effective.

I have a strong interest in monitoring the tides (see below) and have a Tide height gauge (until the transmitter went completely under). I am available, willing, and keen to assist as part of a team working through the finer details to better the management of Wivenhoe.

Yours truly,

Dr David Hinde PhD, B.Eng.
[redacted]


October 2010 Wivenhoe release
3 Riverside Avenue
Barellan Point
16
14
12
10
8
6
4
2
0
9/09/2010 19:28
11/09/2010 10:58
13/09/2010 2:28
14/09/2010 17:58
16/09/2010 9:28
18/09/2010 0:58
19/09/2010 16:28
21/09/2010 7:58
22/09/2010 23:28
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11/10/2010 1:58
12/10/2010 17:28
14/10/2010 8:58
16/10/2010 0:28
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