Ausplanners

The Commissioner

Flood Commission

Dear Commissioner

The purpose of me writing to you is to make submissions in respect of c) to g) of the terms of reference.

My background is of an urban regional and environmental planner and one who has commented on various commissions in the past and written a few journal articles for Queensland Planner etc. My skill is that I think laterally linking a seemingly disconnected thought process to reach quite plausible solutions in planning. I am also a member of the small not for profit Carrington Boating Club, Corinda Inc of Hilda Street Corinda whose premises jetties, moorings and members boats were lost in the January floods.

c) all aspects of the response to the 2010/2011 flood events, particularly measures taken to inform the community and measures to protect life and private and public property, including

- immediate management, response and recovery
- resourcing, overall coordination and deployment of personnel and equipment
- adequacy of equipment and communications systems; and
- the adequacy of the community's response.

I will limit my comments to terms of my observations concerning the informing members of the Carrington Boating Club, Corinda Inc. to protect club and members property.

The flood event at Corinda was much higher about 4 metres higher than that predicted for the Brisbane City gauge yet the club was not informed. Where vessels could have been saved by correct warning, they were tied to the existing moorings and were lost. Some of these vessels were of the highest heritage value like "Tennessee" a 26 foot motor cruiser originally owned by TV's Bob and Dolly Dyer of BP Pick-a-Box fame. If it had been known that a flood height was to be of the order of 8 to 9 metres above AHT, then the moorings could have been vacated, boats saved and mooring lines sunk to later be retrieved after the passing of the flood.

In summary, forecast flood height and flood peaks for each reach of the Brisbane River should be released to those likely to be affected. This includes owners of property on the river and adjacent to it.

d) the measures to manage the supply of essential services such as power, water and communications during the 2010/2011 flood events,

My comments here are one of suggestion concerning high voltage electricity power lines that cross the river and the possibility that with much higher river levels they could come in contact with tall-masted vessels that have been broken away from moorings, with subsequent loss of electricity supply. Yachts are larger and mast heights are higher nowadays, only just clearing existing bridges at low tide. It was only by some fortune that a large yacht with a large mast did not strike cross river powerlines at height of flood.

In summary to maintain the integrity of power supply a review of the heights of cross river power lines should be undertaken taking in account the likelihood of tall masted vessels breaking free of their moorings at the height of river flooding.

e) adequacy of forecasts and early warning systems particularly as they related to the flooding events in Toowoomba, and the Lockyer and Brisbane Valleys,

Forecasts of likely river peak heights and times at Brisbane City Gauge had little correlation to those upstream. In some ways this could have misled people upstream as to the full impact that higher flood peaks would have.

In summary, forecast flood height and flood peak predictions of each reach of the Brisbane River should be released to those properties likely to be affected.

f) implementation of the systems operation plans for dams across the state and in particular the Wivenhoe and Somerset release strategy and an assessment of compliance with, and the suitability of the operational procedures relating to flood mitigation and dam safety,

g) all aspects of land use planning through local and regional planning systems to minimise infrastructure and property impacts from floods,

I will deal with these two points together.

Alternative sources can be used to Lake Wivenhoe.

The release strategy for Somerset and Wivenhoe, I believe to be on a false premise that we must have 100 per cent of drinking water supply to be stored for times of drought. I have always been a proponent of keeping water levels of dams like Wivenhoe Dam to a minimum due to their potential in flood mitigation and I question operational procedures that see excessive waste of water by flood or evaporation in the long term with large environmental damage to the urban and environmental fabric in the event of flood. Let me explain, a full dam (drinking water supply) need not be perceived as securing SEQ water supply. I have pointed this out in various submissions in the past.

If Lake Wivenhoe and Somerset were kept to 60 percent drinking water volume the amount of less water lost to evaporation would be enough to sustain a population of 36,000 residents. The amount of water in a flood topping over their dam walls would be less in flood and

therefore impacts of property damage on Ipswich and Brisbane cities would be less. The environmental damage to the Brisbane River and Moreton Bay would be less. Let me explain another source of water from the great sand islands can be used while keeping these water storages at 60 per cent drinking water volume by means of easing water restrictions or reducing the cost of water etc.

In 1990, during the Fraser Island Inquiry, I made submission that Fraser Island's most valuable resource was water and that the resource should be protected by severely limiting human occupation work practices and visitation to the island. In fact a combined volume of 3,600 megalitres of freshwater per day is lost to the sea from Fraser, Moreton and North Stradbroke Islands. From this one can calculate that in the 21 years since 1990, a vast volume of freshwater estimated to be in the range of 27-28 million megalitres litres has flowed needlessly into the sea from these islands. Even if a sustainable 15 per cent of this volume of freshwater that flows to the sea had been salvaged (similar to present North Stradbroke Island extraction rates), then 4.1 million megalitres of freshwater could have been salvaged and delivered to South East Queensland over the last 21 years ie 197,000 megalitres per year.

If island water had been used at this rate there would not be the critical shortage of water in South East Queensland's dams in the past drought or the need to keep dams so full to accommodate for drought.

Clearly salvaging fresh water from the islands, rather than see it lost to sea could drought proof SEQ yet allow dams to be kept at lower operating levels offering a better buffer against Q100 floods and the damage they do to property and the environment from river to bay. This is a strategy that will work well.

In summary, the use of alternative water sources such as the major sand aquifers of Fraser, Moreton and Stradbroke islands are essential to a more conservative release strategy that will secure future water supplies yet see smaller dam releases during flood with less downstream property and environmental damage to the Brisbane River and Moreton Bay.

Brisbane River is not levy banked.

From a planning point of view a whole part of city that can otherwise be protected by levy banks can be lost in the event of a sunny day flood. I refer to one part and that is the Oxley Creek catchment that could have been contained to a much lesser flood level by the use of levies along the southern banks of the Indooroopilly and Canoe Reaches of the Brisbane River with a double lock on Oxley Creek. With such a levy there would need to be some engineering to make stormwater drains one-way to the river as well. But it would have kept areas of flooding to a minimum including Brisbane Markets, small to heavy industry, community infrastructure social overhead capital etc.

Thus most of Brisbane's industry and greatest number of homes presented to a sunny day flood would be protected. Brisbane City Council could strike a levy on those that would otherwise be likely to be flooded by a Q2 flood and above in the localised area to offset some of the capital costs of such a project. Such a levy or Special Charge has been struck for civil works like a road bridge in Carindale in the past.

In summary levies to protect properties from the affects of sunny day flooding should be considered especially along the Indooroopilly and Canoe reaches of the Brisbane River. Payment for these levies should be by a special charge on those being affected.

Dredging

One of the likely reasons for heavy flooding along the upper Brisbane City Reaches is the amount of silt and sand that accumulated in the river this time. It is assumed that one reason for a higher flood than expected was the large volume of sand and silt from the Lockyer Creek that flowed and filled the river bed. From a few soundings around Carrington Rocks there is evidence of the riverbed being 3-4 metres shallower compared to pre-flood levels. In addition there has been subsequent subsidence of the river banks, possibly due to rapid or sudden drawback of flood water releases from dams. This is not assisted by recreational boating (bow wave boats) etc that scour the existing river banks. If it is found by further research that this shallowing of the river bed is occurring then it seems only dredging will return the river to a satisfactory depth for the high velocity of river flows to take the next flood without extensive damage. Ultimately whilst there may or may not be environmental impacts to the river, this must be weighed up to the impacts of massive amounts of silt and pollutants that are carried out to Moreton Bay.

In summary, the Brisbane should be dredged to lessen the impact of flooding and to protect river banks boat speed limits speed limits and no wake regulations introduced and enforced. Such dredging should be carried out so to balance the overall environmental impacts of river and bay environs.

Land Bank Issues

In the State somewhere there is alternative land that could be banked by the State and used to provide an incentive to exchange to a small minority of landholders who wish to sell their damaged house and land in the case of flood and tidal surge disasters. Sometimes local councils have large land holdings that can be used for this purpose but they are not in the Local government area affected. Therefore State control of a land bank is essential and it is suggested that the State Government swaps and with local governments in return for advancing some benefit, say accelerated sewerage, roads or bridge infrastructure etc. Here is an example, Redland City Council transfers ownership of 200 lots of bay island land, say on Russell Island and another 200 in other council areas elsewhere. In return it the State government accelerates a program of capital works to Councils from which the title of land is transferred. Say te State provides $20 million for a barge link to Russell Island and $20 million in capital works in other participating council areas elsewhere. The State then offers this land for sale to families who have had their homes destroyed as an incentive for them to leave say a property flood or storm surge affected area say in Brisbane, Caboolture, Rockhampton, Grantham, Mission Beach, Ipswich or Emerald. The balance of the value of the flood affected property is picked up by the local council. Redland City Council and other participating councils are better off as they have benefitted with accelerated development of infrastructure. The provision of such infrastructure can have other benefits say private construction transport costs reduced and land values to rise in a particular area due to better roads and access. Say 400, out of say 10000 flood victims have been given a chance to get out of their hopeless situation by being offered land from a land bank as part payment for

their flood affected home that they must sell to the local council or sell to someone who can restore that flood affected property to a raised level above a Q100 level. The State government is better off as it will not have to subsidise councils land purchase to the degree it may have felt obliged to do so. The local councils are better off as they can buy back more flood affected homes. It's a win-win-win situation.

In summary, the State government should invest in a disaster land bank so that property owners affected by this and subsequent floods/storm surges can be provided with a new start.

Current Brisbane City Council Planning

As a planner I see little benefit in like for like rebuilding of flood affected properties. We must accept the fact that the probability of more frequent flooding is as real as global warming. All flood affected properties that are capable of being rebuilt should be raised to a level where a Q100 flood will not affect liveable floor space and this must be carried out on a site to site basis. Where the value of rebuilding is such that it is deemed a write off, then rebuilding should not be permitted and the property compulsorily acquired.

In summary, where possible any rebuilding must avoid future flooding.

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