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Upper Briebane River Valley.

KECENFI

Senate Rural and Regional Affairs and

Transport Committee

27th March, 2007.

The Secretary,
Senate Rural & Regional Affairs & Transport
Parliament Nouse, Enquiry,
CANBERRA. A.C.T.

Dear Str.

SUBMISSION TO SENATE ENQUIRE ON WATER.

TRAVESTON CROSSING DAM.

BACKGROUND.

Having lived since my marriage in 1952 on the upper reaches of the Brisbane River (above Wivenhoe Dam) catchment, prior to which I lived for 25 years in Brisbane and worked at C.S.I.R.O. Division of Plant Industry, I am most concerned at the proposal to build the Traveston Crossing Dam for the following reasons:-

1. PREDICTED RAINFALL. (FILLING A DAM LAKE)

At the International Conference at Launceston, Dr. Richard Warwick stated that "while science is conservetive, the rainfall in the south-east is predicted to lessen considerably.

Living on the Brisbane River headwaters which rise across the mountain divide between the Brisbane and Mary Rivers, the lessening of rainfall since 1990 has become disturbing; and the Brisbane River (180 river miles from the mouth) is now a series of low waterholes with no water available for irrigation.

2. EVAPORATION.

The Wivenhoe Dam and the Traveston Crossing Dam are both very shallow storages; and new research (attached) by the Centre for Water Research at the University of Western Australia has found that between 35% and 45% of total loss of water annually through evaporation occurs during the night, irrespective of a dam's size or the climatic region in which it is located.

Evaporation in the Lockyer Valley (Gatton Research Station) records 300% annual evaporation above natural rainfall; and this startling figure is very evident on the ground.

- (a) I refer the Committee to "LANDCARE AUSTRALIA MEETING THE GREENHOUSE CHALLENGE" published by the Australian Greenhouse Office ISBN-1921120037
- (b) ECOS 130 April/May, 2006. TOWARDS A SUSTAINABLE FUTURE. P.28. A View of Dangerous Climate Change by International Climate Advisor, Professor John Schellmhuber.
- (o) THE WEATHER MAKERS The History and Future Impact of Climate Change by Professor Tim Flannery ABC Bookshop.
- (4) GREFFITH UNIVERSITY REVIEW Winter 2006. "MOT AIR"
 "Climate Change is the greatest challenge confronting the world".

3. ARABLE LAND.

At a Conference in Brisbane, Russian Leader Mr. Gorbachev said "Russia had made a big mistake in building dams which destroyed agricultural land".

In Queensland (and Australia) we have the oldest depleted soils and the driest continent in the world; and cannot afford to destroy scarce arable land in the highest rainfall coastal belt if we are to provide food, fuel and fibre for our population.

4. RIGHWAYS.

The proposal to flood portion of the coastal highway is irresponsible and at best a gamble which may not pay off either economically or environmentally.

Also it is essential that food be produced as close as possible to point of consumption to save transport costs - a move now taking place in Europe in order to address global warming.

5. CHEMICAL RESIDUE.

Old residents report hundreds of cattle dips charged with arsenie originally will lie under the proposed lake and contaminate the storage.

ENDANGERED SPECIES. 6.

It is understood that to date the proposal to build the Traveston Dam has not been referred to the Commonwealth Government which has responsibilities under the Environmental Protection and Biodiversity Conservation Act of 1999 to protect nationally threatened species such as the Ceratagus (Lung Fish) and many other actions likely to have a significant impact are also acsessed.

IMPACTS ON LANDOWNERS:- THE SOLUTION.

Landholders living above the Borumba Dan Ga Yabba Creek (a tributary of the Mary River) are very few, and their land was resumed years ago when it was proposed to raise the wall of the Borumba Dam the secondary stage - which would flood steeper grazing country It is 88% capacity at present. and little infrastructure.

This solution - whilst still a gamble in view of climate change would involve less trauma, expenditure, ecological impact and disruption; and I urge Committee Members to consider this submission accordingly.

Scientists Mk3 model indicates the weather patterns of previous decades are no longer reliable; and a gamble of the Treveston Dam proportions is reckless and ill-advised surely under such circumstances. A large catchment does not ensure heavy precipitation necessary to provide run-off.

In a letter to me of 10th August, 2006, the Premier's Chief of Staff wrotes-

"The Premier wishes to stress that if there was a comparable alternative to the Treveston Crossing Dam that could ensure that South-East Queensland residents' water supply was secured into the future with minimised social impacts, it would certainly be undertaken".

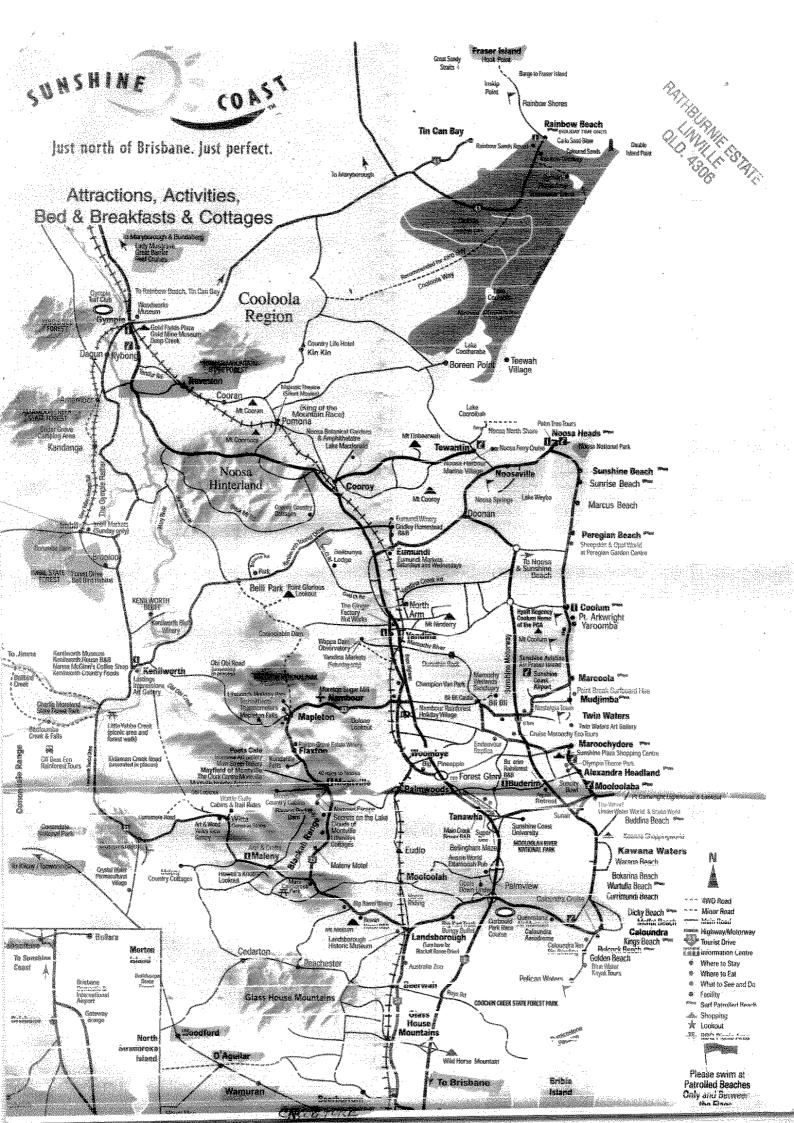
I urge you to consider the words of Vice-President Al Gore
"The best leaders are those who know when
it is time to change and move into the
future".

Please consider!

Yours truly,

(Mrs.)V.D.BURNETT. (AGED 80)
TRUSTEE - ESTATE G.C.BURNETT (DECD.) (AIF. QX.898)

P.S. In submitting this summary, I wish to stress I have no family nor siblings nor friends involved in the Traveston Crossing Dam. When I was younger, I was taught to respect my elders - now I am an "elder" I do not have to respect anybody and can speak my concerns for the future of my country which my late husband went to defend.



Night-time evaporation proves

rate of night-time evaporation from farm dams far exceeds previous estimates — in fact almost half of evaporation losses — forcing a significant re-think on design and construction to ensure efficient storages.

The study was funded by the National Program for Sustainable Irrigation (NPSI) and conducted by Matthew Hipsey from the Centre for Water Research at the University of Western Australia.

After modelling 10 dams in four different climatic regions, it's been

found that, irrespective of a dam's size or the climatic region in which it is located, between 35 and 45% of the total annual loss of water through evaporation occurs during the night.

There was significant seasonal variability, with predictions for a considerable increase in

the night-time contribution during the winter months at all sites to between 55 and 70%.

South-west WA displayed the lowest



Matthew Hipsey

night time contribution (36%) and MurrayDarling Basin region of Queensland showed the highest (44%). Both northern Victoria and the Barossa region of SA showed contributions of approximately 40% over the simulated year. However, the analysis concluded that climate

and dam shape had little to do with the fraction of evaporation occurring during the night so it is an issue irrespective of where you are.

Irrigation

significant for farm dams

"Evaporation losses from farm dams are a major potential area of real water savings as roughly one-third of water captured nationally is lost through evaporation," Mr Hipsey said.

"What this study shows is that evaporation is a constant, not just a day time issue, and many methods used in the past to calculate losses to seepage will have to be revised.

"To reduce evaporation, ensure the dam is sheltered from sun and wind, and minimise the surface area to volume ratio."

volume ratio."

The study used the Centre for Water
Research's "Dynamic Reservoir

Simulation Model" (DYRESM). As part of this project, DYRESM was upgraded for irrigation storages and is now available free online to help engineers and farmers design more efficient dams.

More details of the research are available through the National Program for Sustainable Imgation website: www.npsi.gov.au.

NPSI is focused on research that will drive the development and adoption of sustainable irrigation practices in Australian agriculture. It is managed by Land & Water Australia on behalf of its 14 partners.

Research Bulletin 5: New Tools for Measuring Evanoration from Farm Dams, has been released by NPSI. It includes a ready reckoner's spreadsheet that calculates the cost of installing an evaporation reduction system and calculates now much water is saved evaporation. The Research Bulletin is available from www.npsi.gov.au

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Published by historical Grandown Office.

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