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Submission No:230.....
Date Received:15/12/10.....
Secretary:SC.....

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10 December 2010

The Chair
House of Representatives Standing Committee
Regional Australia
PO Box 6021
Parliament House
Canberra ACT 2600

RE: INQUIRY INTO THE IMPACT OF THE MURRAY-DARLING BASIN PLAN
IN REGIONAL AUSTRALIA

Dear Sir,

I wish to make a formal submission to the above inquiry.

The submission herewith enclosed comprises a hard copy (comprising five pages) and a disc (containing a 14 minute video presentation). - *To Follow.*

It is a response to the 'Guide to the Proposed Basin Plan' and its socio-economic impact on the Murray-Darling Basin. -

Inquiry Terms of Reference -

Special reference to:

Item 3 - The role of governments, the agricultural industry and the research sector in developing and delivering infrastructure and technologies aimed at supporting water efficiency within the Murray-Darling Basin

and

Opportunities for economic growth and diversification within regional communities.

If the committee require more information, I would be happy to attend personally before the inquiry.

Yours Sincerely

Peter Gately

A response to the 'Guide to the Proposed Basin Plan' and its socio-economic impact on the Murray-Darling Basin. –

Inquiry Terms of Reference –

Item 3 – The role of governments, the agricultural industry and the research sector in developing and delivering infrastructure and technologies aimed at supporting water efficiency within the Murray-Darling Basin.

Opportunities for economic growth and diversification within regional communities.

New Water for the Murray- Darling System

–

An Environmentally Friendly Solution for the Basin

By

Peter Gately

New Water for the Murray-Darling System – An Environmental Friendly Solution for the Basin

Australia is one of the driest countries on earth. Historically, we have taken our water supplies as being naturally spasmodic – about which we could do very little. –

Now we have a chance to control our destiny and become self reliant with our water supply and our food production. – Farming; farmers and all Australians need assurance that we are capable of ensuring a steady and reliable food source.

In the history of Australia there has never been a more urgent need to provide fresh water to Australians and Australian properties.

What is the value of a glass of water you may ask? To a person with an endless supply – probable very little – to one without water it is invaluable.

Australia is shaped like an upturned saucer with some 90% of stormwater falling onto the outer edges and flowing directly into the adjoining sea. Much of the remaining 10% is spread over the inland and only a small percentage flowing down the Murray Darling River System and through the Great Artesian Basin.

A new water supply pipeline recently proposed by China to deliver water to Shanghai and other major coastal cities from the inland – traverses some long distances and heights. This supply is necessary for these cities to continue to prosper and offers security of water supplies.

A similar system is being proposed for Australia, in order to secure a reliable supply of fresh water to our inland towns, cities, farms and the Murray-Darling System itself.

This system aims at harvesting water from a small number of rivers that flow into the Gulf of Carpentaria during the wet season and re-direct that water to the south. This system will have no impact whatsoever on any living creature or the environment either in the catchment areas, the Gulf of Carpentaria or throughout its entire length. It will reduce current erosion occurring within these rivers and it is designed to be environmentally compatible, to use mainly alternative energy supplies and gravity flow whenever possible throughout its length. The Gulf of Carpentaria near Cloncurry receives approximately 800mm of rainfall per year – which is greater than Adelaide. Of the 40 rivers that flow into the gulf, the system proposed is designed to take water from the headwaters of 6 rivers that flow into the gulf and pump the monsoon stormwater up into three holding ponds (each having a capacity of 1 gigalitre) – to be located near Cloncurry.

Each of these ponds is to be serviced by pipes capable of supplying 150 gigalitres of water into the distribution system over a six month period during the rainy season totalling 450 gigalitres; i.e. Some 2500 megalitres per day per half year.

The delivery system is designed to supply water to the following locations:

- (a) Inland farms and towns in Queensland, New South Wales, Victoria and South Australia
- (b) The Murray-Darling System and the Lakes
- (c) Adelaide

The Economist Adam Smith referring to the practical use of water said in his “Wealth of Nations” “Nothing is more useful than water but it will purchase scarce anything; scarce anything can be had in exchange for it”

However for Australia and the world generally there is a real economic need for water today.

Water has a special value to Australians and our Nation because of its scarcity and the uses to which it can be put, to support our population, grow crops and provide water for humans and animals.

The question may well be: - what is the “highest and best” use to which water may be put – and in fact this is an ongoing discussion - for example; with the large cotton farms in south-west Queensland.

This argument together with the never-ending calls of environmentalists, pastoralists, save the river/lakes people are all calling for Federal Government action over the gradual declining water flow in the Murray-Darling System and further down stream, to Adelaide.

The Federal Government’s purchase of water leases is a short-term attempt to hold onto the ever-diminishing water supply that is currently available and makes no attempt at trying to provide a consistent flow along the Murray Darling System to the towns, farms and population that depend on this water.

From a social and political viewpoint, there is emerging a picture of many farms and farmers becoming insolvent or selling their properties and/or water rights and losing hope in the future.

This trend is not in the best interest of our Nation as there are now fewer farms and qualified/experienced farmers to provide food for our population.

Current supermarket practices of buying food products from overseas will only work until there is a hefty increase in petroleum shipping/transportation costs to Australia or a food production crisis overseas – as happened in 2007.

Australia should be able to stand on its own and not rely on buying food from poorer/less-developed countries especially in times of poor yields overseas and changing American food production practices because of their need for alternative petrol production crops.

Pipelines for the supply of water are already being built in Victoria – Woomera Mallee Pipeline; (to replace 18,000kms of open irrigation channels) Goulburn to Melbourne Pipeline (75 billion litres a year) and a Bendigo to Ballarat Pipeline.

In Queensland, a 130 km system from Burdekin River to Bowen; the new Toowoomba Pipeline as part of the Brisbane and region water grid project and in Sydney, hundreds of kilometres of pipelines are to be laid for the new desalination plant.

The main economic reason for not transporting water over hundreds of kilometres has been the costs involved – up to 10 times more expensive than moving energy over the same distances and nearly 100 times more expensive than piping natural gas – and both these command higher prices.

In 1944 water flowed through the Morgan to Whyalla Pipelines and in 1954 the Mannum to Adelaide Pipeline, followed by the Swan Reach – Stockwell and Tailem Bend – Keith Pipelines in 1960's and the Murray Bridge to Onkaparinga in 1973 – all mostly short in length – except for the 600 kilometre Perth to Kalgoorlie pipeline built around 100 years ago.

The Chinese government has announced in their 15-year (2006-2020) plan – huge water projects to improve water quality and quantity to cities and provinces such as Shanghai and Zhejiang.

This proposal is to supply Adelaide, and inland towns and farms, the lakes, and the Murray Darling System itself, with a total of 450 gigalitres of water per half year (2500 megalitres per day over the rainy season) – for example the current average daily supply/use for Canberra with a population about half of Adelaide's is approximately 115 megalitres per day. This system is anticipated to benefit some 4 million people directly and the remaining Australian population indirectly by (1) Reducing the demand on the existing water usage by towns and cities in eastern Australia. (2) Increasing food availability and production within the basin. (3) Giving financial and economic assurance to farmers and towns across the basin.

The energy to pump the diverted water up from the six Gulf Rivers to the three holding ponds – to be located between Cloncurry and Gilliat and then to traverse the (approximately) 1000 kilometres from Cloncurry to the Paroo Creek is anticipated to be met by solar and wind farms capable of producing the relevant electrical power required to meet demand with gas power for back-up. The wind and solar energy generators will be used only for six months for the project – the remaining six months the electricity produced will be sold to the Queensland's grid transmission system from Mount Isa to Townsville, and from Charleville to Brisbane then onto the southern states supplying electric power for use at peak demand during the winter months from April to October. Some 1 million panels are planned to provide some 200 megawatts of electric power, using the latest designed Australian solar technology, and together with the wind turbines and trough concentrator solar dishes a total of some 400 megawatts.

Unlike existing wind generators presently constructed in the high latitudes – approximately 100 metres in height – the proposed low latitude (tropical) turbines will be approximately half as high – some 50 metres, be more robust in design; and able to continue working in stronger winds during the monsoon season. As the delivery system extends further south – the height of the turbines will increase.

These generators will be located adjoining the off-take from the rivers and along the Cloncurry to Paroo Creek and where required at less frequent intervals over the remainder of the route. The longest part of Pipeline travel – after reaching the Paroo Creek – will be by gravity all the way to the intervening towns; farms, lakes and to the Adelaide reservoir. In the first section between Cloncurry and the Paroo Creek the proposal is to divert the delivery system around the intervening hills and over the saddles. A total of 20 wind turbines anticipated to be built as well as 20 trough concentrator solar dishes throughout the Northern sector of the project are all in the range of 2 to 5 megawatts of electricity – in order to produce additional electrical generation and at the same time to reduce evaporation from each of the ponds – each pond to be 400 x 400 (long/wide) x 6.25metres deep and to each have a capacity of 1 gigalitre (1,000 million litres) at both Cloncurry and Paroo Creek. – A system of floating solar panels interconnected by plug and lock devices will perform that dual function – covering an area of some 48 hectares (480,000 square metres) for each set of ponds. These panels to be independently connected on all four sides – similarly to a trailer connection to a car – so that if one dysfunctions – the remainder will continue to work. As the location is within or adjoins the tropics, their flat position on the water will receive maximum energy during sunlight hours and they will not need to be tilted towards the sun as in the southern states. Solar panels will be kept dust-free by small re-chargeable battery power, vacuum robots, housed on either side of the ponds – not dis-similar to ‘Creepy Crawleys’ for cleaning swimming pools. The total water delivery system is designed to meet its annual maintenance/operating running costs, and to repay establishment costs.

The current push by China and several other Asian countries into the Island of Madagascar (about the size of New South Wales and containing over 20 million people) and into other mainland African nations – to purchase, lease or rent land – for growing food crops for their own people back home has surely not gone unnoticed.

By importing foodstuffs we reduce the food available to the average family in the country of origin and contribute to this impoverishment when we should be producing this food ourselves. Not only do we see skyrocketing food prices in Australia, but we also see a diminution in the number of farms and farming communities able to produce food.

A series of official reports fairly accurately described what we are now witnessing in relation to water. In 2003 the Howard government's report, *Climate Change – an Australian Guide to the Science and Potential Impacts* noted that “Less secure water supplies would accentuate competition between users and threaten allocation for environmental flows and future economic growth...

Evidence suggests that the observed warming trend in Australia has already contributed to an increased severity of drought through higher potential evaporation and water demand”. Fast forward to 2009 and we have seen or heard about water woes afflicting the Lachlan, Darling and Murray Rivers, the Coorong and lower lakes crisis, dwindling water supplies in Perth and Melbourne

It is not too late to change national spending priorities on nationally important infrastructure projects and to offer all Australians a hope for a greener, productive and secure (water) future for generations to come.

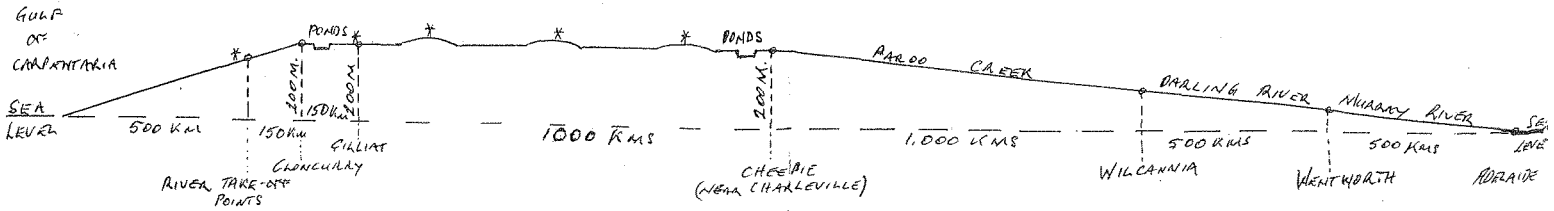
The benefits for building this water distribution system far outweigh the costs involved. The system is designed to financially break even and eventually run at a profit for all concerned.

Costs & Benefits include:

The system is estimated to cost \$1 Billion – benefits include providing a security of water supply for farms, crops, food production, river flows and animals, and to create employment in environment, cultural, social, health, medical, transport, employment, education areas for people across Australia and to act proactively to ensure a ready supply of cheap, efficient, steady provision of water to towns, communities, cities, farming properties within the Great Artesian Basin.

Peter Gately

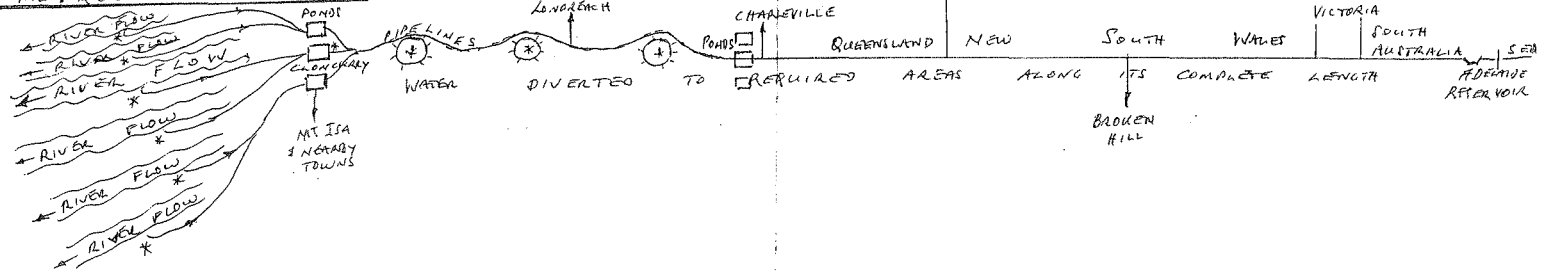
ELEVATION VIEW - ACROSS AUSTRALIA



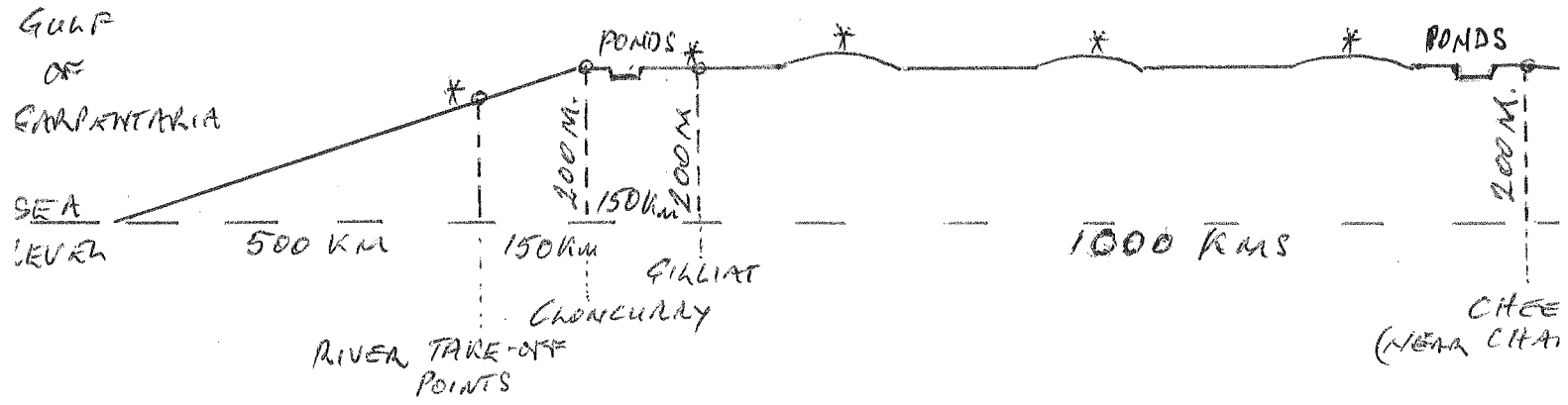
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