Submission to the Traveston Dam Senate Inquiry

The Secretary
Senate Rural and Regional Affairs and Transport
Parliament House
Canberra ACT 2600

3rd April 2007

Dear Sir/Madam

Re: Inquiry into Additional Water Supplies for South East Queensland – Traveston Crossing Dam Information

Preamble:

The Queensland Conservation Council [QCC] is the peak environment and conservation not-for-profit body in Queensland. Established in 1969, QCC works in partnership with its 70 member groups state-wide to protect, conserve and sustain Queensland's unique natural heritage. QCC provides leadership and dialogue on a wide range of environmental issues at all levels of government, and throughout the wider community.

QCC has a particular interest in the Traveston Crossing Dam proposal, as a number of resultant key environmental threats and impacts have been identified, and are of significant concern for QCC and its membership.

QCC is concerned with the following issues regarding the Traveston Crossing Dam proposal:

1. Environmental issues;
2. Economic cost;
3. Social cost; and
4. Government process.

1. Environmental Issues

1.1 Endangered Species:

At least 5 fauna species listed as vulnerable will be threatened by the proposed Traveston Crossing Dam. They are:

- Mary Valley Cod [Maccullochella peelii marienus];
- Mary Valley Turtle [Elusor macrusus];
- Queensland Lungfish [Neoceratodus fosteri];
- Giant Barred Frog [Mixophyes herates]; and
- Cascade Tree Frog [Liforia pearsonia]

Most of the above species rely on specialised habitat found only within the Mary River catchment and, in particular, the reach of the Mary River, which will be inundated if the dam were to proceed.

As the EPBC Act is triggered as a result of the identified listed species, the Australian Government has a legal requirement to administer and enforce the EPBC Act in regard to the Traveston Crossing Dam and, due to the uniqueness and limited range of the identified species, not give approval for construction of the dam.

1.2 Downstream impacts:

The reduction of environmental flow as a result of the Traveston Crossing Dam will have significant impacts on both the ecological and human communities along the 200 km of the Mary River downstream from the dam wall.

The Mary River is characterised by generally having low flows, with occasional extreme flooding events which, given the impacts of declining rainfall due to climate change, will become less frequent.

Consequently, any further and additional impoundment of flow within the Mary River, will have significant impact on the downstream ecological health of the river.

As freshwater flows are fundamental to marine environments, a dam on the Mary River would have a disastrous effect on the marine environment in the Great Sandy Strait, a RAMSAR listed wetland, and potentially impact negatively on ecological communities that support migratory species.

Additionally, a dam as proposed at Traveston Crossing, will negatively impact on commercial and recreational fishing in the region. The Great Sandy Strait contributes $100 Million annually to the local economy through tourism, which would be threatened if the dam were to proceed.

1.2 Geomechanics:

It appears the geological conditions of the Traveston Crossing Dam site consist predominately of a sandy substrate, which raises the concern of potentially significant leakage.

In addition to this, the Stage 1 average depth of the dam is approximately 5 metres, which raises concerns regarding the potentially high evaporation rate of such a large but shallow surface area, which, combined with predicted climate change impacts of increased temperature and reduced rainfall patterns, leads to speculation as to whether the proposed dam would actually fill.

Another significant potential outcome from the construction of a large, shallow dam that may or may not fill, is rapid infestation from potentially rampant aquatic water weeds, such as water hyacinth and salvinia, both of which are currently found in the Mary Valley catchment.

1.3 Changed downstream sediment loading

Reduction in sediment moving downstream from a dam leads to degradation of the river channel below the facility. This can lead to the elimination of beaches and backwaters that provide habitat for native fish and turtles, and the reduction or elimination of riparian vegetation that provide nutrients and habitat for aquatic and waterfowl species. For these reasons, the proposed Traveston Crossing Dam is likely to have significant impact on listed threatened species.

The Report of the World Commission on Dams (2000) states: "The reduction in sediment and nutrient transport in rivers downstream of dams has impacts on channel, floodplain and coastal delta morphology and can cause the loss of aquatic habitat for fish and other species. Changes in river water turbidity may affect biota directly. For example, plankton production is influenced by many variables, including turbidity. If this is reduced due to impoundment, plankton development may be enhanced and may occur in new sections of a river."

1.4 Greenhouse gas [GHG]

GHG emissions will result from a number of different sources if the dam were to proceed, which include:

- Decaying inundated vegetation;
- GHG emitted from construction augmentation activities; and
- Ongoing emissions from dam operations and water pumping.

It appears that mitigation of the GHG emitted from the construction and operation of Traveston Crossing Dam has not been considered by either reducing, avoiding or offsetting GHG.

We note that the Queensland Government has no GHG Offset policy on public or private infrastructure of this kind.

2. Economic cost

2.1 Overall cost

The financial cost of constructing Traveston Crossing Dam, according to government estimates, is in the vicinity of $1.7 Billion, which translates approximately to $3 per Kilolitre of water, making water from the proposed dam very expensive.

2.2 Least Cost Planning [LCP]

LCP involves a set of principles that guide integrated resource planning, rather than just focussing on increasing supply, and considers all options to improve efficient resource use. Options utilised to improve water use efficiencies are called demand management options, which seek to manage and limit resource [water] use by consumers, while ensuring resource [water] availability to the consumer.

Demand management strategies such as: installing water efficient shower heads, water efficient appliances, rainwater tanks, leak detection and remediation, reuse and recycling and pressure reduction are effective means to manage demand.

It appears that the Queensland Government has not fully assessed the Traveston Crossing Dam utilising LCP principles. It seems evident that the full range of demand-side management alternatives have not been adequately assessed for cost comparison, as indicated within the recent Mary Valley Mayors report titled "*Review of Water Supply-Demand Options for South East Queensland"* prepared by the Institute for Sustainable Futures, Sydney and Cardno, Brisbane.

2.3 Cost to primary production

The area of the Mary Valley threatened by inundation from the Traveston Crossing Dam comprises highly productive agricultural enterprises, primarily dairy farms. Inundation of these highly productive properties virtually on the doorstep of South East Queensland major population densities, will lead to the loss of a multi million dollar industry that will have financial consequences for consumers throughout South East Queensland.

3. Social Cost

The QCC makes no claim of expertise in the field of social impacts. We are aware, however, of the anguish, turmoil, fear and uncertainty being faced by property owners and other residents within the inundation area.

Social and cultural impacts, such as local cemetery inundation or relocation, create a cost to the community beyond calculation, in addition to uncertain and declining property values directly subjecting property owners and residents in the inundation areas to unmitigated levels of stress.

4. Government process

4.1 Mary Basin Water Resource Plan [WRP]

It has been reported that the Community Reference Panel [CRP] appointed through the Mary Basin WRP process consider that they were "profoundly deceived" by the Queensland Government during the development of the MBWRP, and have consequently withdrawn their support for the WRP. Allegedly, the Queensland Government has made substantial changes between the draft and final WRP, primarily to accommodate the inclusion of the Traveston Crossing Dam proposal, and subsequent to the CRP withdrawing their support, and without any further community consultation.

4.2 National Action Plans

In addition to this, the Traveston Crossing Dam proposal falls clearly within the parameters of several Australian Government policies and legislations, under which the Australian and Queensland governments have bilateral agreements, which include:

- National Action Plan for Salinity and Water Quality [NAPSWQ];
- National Water Initiative [NWI];
- National Biodiversity and Climate Change Action Plan [NBCCAP];
- Environment Protection and Biodiversity Conservation Act [EPBC]; and
- National Agriculture and Climate Change Action Plan [NACCAP].

It would appear that the proposed Traveston Crossing Dam proposal directly contravenes the intent, objectives and outcomes of the above listed national action plans.

As the Queensland Government is the proponent of the Traveston Crossing Dam, there appears to be a significant conflict of interest for the Queensland Government in administering their obligations under these national action plans and the intended outcomes of the dam proposal.

In light of this, QCC believes a full and further investigation is warranted of the perceived conflict of interest with the Traveston Crossing Dam proposal.

Conclusion:

It appears to QCC that if the Queensland Government wanted to build a new mega dam in the "wrong place", for the "wrong reasons" and to maximise the "worst impacts", the Traveston Crossing Dam proposal then shapes up to be the "right choice".

Not withstanding this, the Traveston Crossing Dam proposal shapes up to be a high risk and high cost proposal, and does not stack up economically, environmentally or socially in any regard, and is therefore an unacceptable solution to ensuring water supply to SEQ.

Possibly the foremost consideration in regard to this dam proposal, is the acknowledged change to rainfall patterns as a result of climate change, which strongly indicate the Traveston Crossing Dam will not deliver water supply to SEQ in time to alleviate the current water crisis, or provide any longer term reliable supply. This may result in the Traveston Crossing Dam being a very environmentally, economically and socially expensive 'white elephant'.

QCC is of the opinion that the public monies being proposed to be spent on constructing Traveston Crossing Dam, raising Borumba Dam and constructing Wyaralong Dam, would be far better spent on comprehensive demand management strategies, retrofitting [dredging and deepening] of existing dam infrastructures and stormwater harvesting.

Yours Sincerely,

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