



# GYMPIE & DISTRICT LANDCARE GROUP INC.

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16<sup>th</sup> February 2007

Project Manager – Traveston Crossing Dam Project  
SEQ Infrastructure (Water)  
The Coordinator-General  
PO Box 15009  
City East QLD 4002

Dear Sir,

**Re: Submission on the draft Terms of Reference for the EIS – Traveston Crossing Dam proposal.**

The purpose of this submission is to provide feedback on the Draft Terms of Reference (ToR) for an Environmental Impact Statement (EIS) dated December 2006 regarding the proposed Traveston Crossing Dam.

The Gympie and District Landcare Group (G&DLCG) is a community based group who have been involved with land care activities including river restoration for over 18 years.

We request that our group be considered a stakeholder in the ongoing consultation process concerning the project and in the Resource Operations Plan that would licence its operations under the Water Act 2000, should the project be approved. It also requests that this submission on the draft ToR be considered as a submission to the EIS itself.

We believe building this dam will have detrimental social, economic and environmental impacts. Millions of dollars have been spent on restoration projects along the Mary River and associated tributaries, which are put at risk because of this proposal.

## **Background**

Historically, early settlers didn't understand the key role of riparian vegetation in protecting the riverbank, and didn't foresee the massive erosion caused by extensive clearing of the timber from the riverbanks. The result was the once deep waterholes filled up with sediment, water quality declined, and the loss of fish habitat lead to a decline in fish numbers.

The G&DLCG was formed in 1988 and has a long association with farming organisations, large and small businesses, respective tiers of government department's involved in water and land management, local government and community organisations including schools.

It is these links that have continued to develop and enhance the G&DLCG contributing towards a better understanding of the dynamics of natural systems throughout the G&DLCG area and in conjunction with other Landcare groups throughout the catchment.

This has been achieved despite living with drought conditions for the last 20 or more years.

The Gympie and District Land Care Group has been involved in a range of activities to improve degraded areas along riparian corridors, some of which are listed below;

- The Gympie town reach of the Mary River over ten years
- Various parcels of reserve land within Gympie including a cabinet timber Farm Forestry plot
- Revegetation of the Mary Riverbank Traveston Crossing
- Various sections of the Imbil town reach of Yabba Creek
- Various sites on Amamoor Creek in association with QP&WS and DNRM, and the Gympie Country Music Muster committee
- Cats Claw Creeper Management Project
- Involvement with the Mary River Catchment Coordinating Committee (MRCCC) Mary River Cod Recovery Program. Restoring Cod Habitat in conjunction with Threatened Species Network Grant, World Wildlife Fund for Nature, Griffith University Aquatic Ecologists and Departmental researchers and extension officers
- Waterwatch Program since 1995

### **Points of Concern**

The following are points of concern that we would like considered in the ToR for the EIS. We recommend for the ToR to include internationally acceptable social impact assessment and management principles. For the social, economic and environmental impacts on all landholders and communities directly affected, as well as those not directly affected by the dam eg. in the upper sections of the catchment and below the dam wall down to Hervey Bay including impacts on fisheries, wetlands and tourism. All alternative projects need to be assessed in terms of comparative socio-economic impact.

Other priority areas of concern include the Mary Basin Water Resources Plan, riverbanks, environmental flows, salinity issues, weeds and ecological conservation values that relate to the endangered Mary River Cod, Mary River Tortoise, the Australian Lungfish and the Grey-headed Flying Fox and others. Eighteen species are listed as either endangered or vulnerable.

### **Alternatives**

Recently the Mary River Council of Mayors commissioned Cardno and University of Technology Sydney to investigate alternative water supply sources for South-east Queensland. "This Study outlines a robust strategy for meeting the supply-demand balance within the planning horizon of 2050, without needing to construct a dam at Traveston Crossing on the Mary River. This is a strategy that has significantly lower costs, reduced greenhouse gas emissions and reduced environmental and social impact. It also offers an adaptive approach to changing circumstances in terms of yield and demand. This Study also makes a series of recommendations to improve the transparency and level of community engagement in water planning in SEQ." (Carno and University of Technology Sydney 2007.)

### **Recommendation:**

It is recommended the final ToR includes the outcomes of this study in the alternatives section (Section 1.4) and the cost / benefit analysis (1.3.2) section. The Gympie and District Landcare Group requests the Coordinator General carefully considers the findings of the Mary River Council of Mayors report.

### **Mary Basin Water Resources Plan**

The dam is being constructed for people of Brisbane, taking water out of the Mary River catchment to the detriment of those living and working within the Mary River catchment. The Mary Basin Water Resources Plan is a flawed document. A Community Reference Panel made up of Sector Representative and Indigenous groups was set up in 2003.

In November 2005 a draft plan was released for public consultation. In April 2006 the Premier announced the proposed Traveston Crossing Dam.

The final draft was altered to now include the proposed Traveston Crossing Dam and endorsed by parliament 28<sup>th</sup> July 2006 without further community consultation.

The community members who had contributed their time and effort to develop this draft document, were left feeling grossly deceived as there was never any mention of the Traveston Crossing Dam in any of the discussions.

Simply achieving the outcomes listed in the Water Resource Plan will not provide for environmentally sustainable flows at crucial locations in the river. The EIS must be based on the flows which are required to ensure the continued viability of threatened species and habitats.

The Mary Basin Resource Plan does not take into account groundwater resources in the Mary River Catchment in the area where the dam is proposed. It would appear that installing a grout curtain to intercept seepage will potentially affect the groundwater in the area.

#### **Recommendation:**

The EIS must be based on the flows which are required to ensure the continued viability of threatened species and habitats. The current Mary Basin Water Resource Plan needs to be reworked to provide adequate scientifically based environmental flows to critical downstream locations at Dagon Pocket (an important breeding ground for the Australian Lungfish and Mary River Tortoise) and at the Mary River Barrage to protect the Great Sandy Straits that are Ramsar listed.

#### **Riverbanks / environmental flows**

CSIRO research (De Rose et. al, 2002) has already shown that riverbank erosion can contribute upwards of 87% of end-of-valley sediments in the Mary River Catchment.

This sediment load carries with it large amounts of phosphates, which stimulate the growth of algae and decrease levels of dissolved oxygen, further impacting on water quality.

The effect of the spillway in decreasing the peak intensity of downstream flood flows but increasing the duration of high flow and high water level events is likely to have large impacts on river bank stability for a great distance downstream. These riverbanks also consist of deep unconsolidated alluvium held together by fragile riparian vegetation and become super-saturated and unstable.

This has already been observed in the catchment as a result of the construction of Baroon Pocket dam which resulted in the destruction of riverbanks and sediment infill of the stream bed along the entire downstream catchment of Obi Obi creek (more than 30km) (Braby 2007). This excessive sediment most likely contributed to death of seagrass and impacted on fisheries, dugong and marine turtles in the Great Sandy Straits after the 1992 floods (McLeod 1996). The implications of this effect for infrastructure and downstream of Traveston Crossing requires thorough investigation for impacts on landholders, communities and ecosystems as far as the Great Sandy Straits Ramsar Wetlands.

There is also major concern of unstable stream banks from water ponding above the dam wall supersaturating the banks similar to what has been experienced by landholders on the Mary River Barrage, putting at risk not only restoration projects but all riverbanks throughout the proposed inundation area.

Other major organisations impacted by this dam being built will be farmers, commercial fishing and local government. The commercial fishers believes that the 1992 twin flood directly effected the fishing industry particularly the nursery areas at the mouth of the Mary River and had a significant effect on brackish water ecosystems and the riverine areas.

The river currently flows unimpinged by any large barrier other than the Barrage at Maryborough.

The ToR has excluded the range of impacts on local government and farmers with the cumulative impact leading to increasing pumping costs, affecting farmer's income and local townspeople's rates.

#### **Recommendation:**

The full economic and social costs of potential collapse of streambanks both in the proposed inundation area and downstream all the way to the Great Sandy Straits Ramsar Wetlands needs to be included in the assessment of the project's potential impacts.

#### **Rare and Threatened Species**

The EIS should be based on the flows, which are required to ensure the continued viability of threatened species and habitats. The ToR doesn't specifically refer to the risk and loss of rare and threatened species. The impact on threatened species must consider loss of habitat, connectivity and fragmentation. Population viability analysis (PVA) and Population and Habitat Viability Analysis or Assessment (PHVA) are very useful tools in evaluating risks, particularly to small populations and threatened species.

**Recommendation:**

That Population Viability Analysis (PVA) and Population and Habitat Viability Analysis or Assessment (PHVA) are included in the analytical tools used in evaluating the risks of extinction from this project on all threatened and endangered species that occur in the Mary River Catchment, Ramsar Wetlands and World Heritage areas downstream.

The Environmentally Sustainable Development (ESD) Charter should be referred to in the ToR, in particular, the need to adopt the 'precautionary principle' where the environmental impact of actions is not fully known.

**Declared Water Catchments**

Landholders in the upper, mid and lower reaches of the catchment are concerned about their future land use if the area becomes a declared water catchment.

Landholders need to know what restrictions would be placed on their properties. It is feared that land use restrictions will be imposed with no agricultural pursuits to take place within 400 meters either side of the Mary River or its tributaries with no compensation to those affected. This action, if implemented will have huge economic loss and another social impacts to those landholders living in these areas of Mary River catchment.

A significant concern missing in the ToR is the social impacts on landholders affected by this dam proposal. The State government has only referred to Stage One even though it has had it's officers attempting to advise affected victims in Stage Two that it would be in their interest to sell now.

**Recommendation:**

The ToR to include reference to informing stakeholders in the catchment of any restrictions on land use and how would they be compensated.

**Weeds**

The total cost of the national farm weed bill is \$ 4 billion per year, made up of yield losses and control costs. (CSIRO- MLA study Feb 05)

The G&DLCG has led the way in addressing the aggressive Cats Claw Creeper vine.

It smothers trees and kills by depriving the tree of light. It is commonly found along waterways smothering vegetation and leading to increased erosion of riverbanks as trees die. It spreads its seed by wind. A combination of collapsed riverbanks and the seed from this plant will quickly establish itself in these locations.

Other weeds such as Noogora Burr, Castor Oil plant and Inkweed are to be found in the receding waterline at Paradise Dam.

Another serious threat is the waterweed Cabomba. This is a weed was originally found in Lake McDonald, one of Noosa Shires' water sources. This weed does not have any predator and has a massive root system. The Noosa Shire Council is spending \$150,000 per year just to monitor and attempt to control it. It is 36km away from the proposed Traveston Crossing dam. If it finds its way into the dam, its expansive and quick growing roots will quickly infest this area and could be spread by floods throughout the river.

**Recommendation:**

The ToR to include baseline studies of all weeds in the catchment and provide strategies for control, costings and responsibility.

**Salinity and Climate Change**

The Mary River Catchment has been identified as a catchment requiring investment under the "National Action Plan for Salinity and Water Quality" due mainly to the high levels of phosphorus and salt levels experienced across the catchment. Its status as a priority catchment under this national plan specifically links its management to particular strategies outlined in the National Biodiversity and Climate Change Action Plan (NBCCAP) 2004-2007, and the National Agriculture and Climate Change Action Plan 2006-2009.

Salinity hazard mapping prepared by the Queensland Government (2003) shows significant parcels of the catchment are at high risk of developing salinity problems in the future including the location of the proposed Traveston Crossing Dam. Already in times of low flow, water salinity increases are being recorded.

In addition to incorporating the effects of climatic trends on streamflow, this also specifically includes evaluating changes to greenhouse gas emissions (carbon and nitrogen compounds) resulting from land use changes. The emission of greenhouse gases (GHG) from reservoirs due to rotting vegetation and carbon inflows from the catchment is a recently identified ecosystem impact (on climate) of storage dams. Estimates suggest that the gross emissions from reservoirs may account for between 1% and 28% of the global warming potential of GHG emissions. (World Commission on Dams 2000).

**Recommendation:**

The following National Action Plans and Agreements relating to catchment management and climate change must be referenced in the Terms of Reference:

- Intergovernmental Agreement on the Environment (IGAE),
- National Biodiversity and Climate Change Action Plan (NBCCAP) 2004-2007,
- National Agriculture and Climate Change Action Plan 2006-2009 and
- National Action Plan for Salinity and Water.

**Conclusion**

There are alternatives to this dam proposal, which are more economic, and with less social, and environmental impacts. A large surface area of water to a average depth of 5 metres, the potential for water weed and terrestrial weeds to infest such a site, the evaporation rates, sediment build up and issues of blue-green algae all combined would lead to a disastrous situation. If one considers the transfer of water along pipelines from dam to dam, catchment to catchment, the situation becomes even more expensive for taxpayers. Already the social impact of this decision made by the Beattie government to build a dam at Traveston Crossing has enormously deflated the community spirit and put many years of community work and good will at risk.

Compensation to this community if the dam proposal is not approved should include increasing funding, encourage, and assist community groups such as G&DLCG to further improve the catchment and help solve the existing problems we already have.

We have a natural system that with the help of the community and others described earlier can improve our quality of life and our environment. Building this dam only exacerbates issues society already has to confront and is not a sustainable solution to the water crisis.

**Yours sincerely**

**Kent Hutton**  
**President**  
**Gympie & District Landcare Group**

**References:**

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McLeod J. (1996). Commercial Fishing Industry's Perspective in Assessing and Adopting Scientific/Technical Information in H.M. Hunter, A.G. Eyles, G.E. Rayment (eds.), 'Downstream Effects of Land Use', 427-428, 1996. © Department of Natural Resources, Queensland, Australia.

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