

## **Briefing on Traveston Crossing Dam issues of relevance to the Federal Government.**

1. Scientific evidence is accumulating that the impacts of the project on Matters of National Environmental Significance (MNES) are large and irreversible. This project is highly likely to increase the risk of extinction of a number of species protected by the EPBC act, and the efficacy and financial viability of proposals published to date to mitigate or offset this risk are unproven.
2. There are many alternative planning and infrastructure options available to the Qld State Government which would provide an equivalent or improved level of water security for SEQ, particularly in the context of current predictions for the effect of climate change on the reliability of new surface water sources. These options are largely available already and can be implemented at a comparable economic cost with a far reduced risk to MNES than the Traveston Crossing Dam proposal.

### **To summarize:**

***The risks the project poses to MNES throughout the entire Mary River system are numerous, significant and irreversible, whereas ample opportunity exists within SEQ for providing equivalent or improved water security through other means.***

### **Notes**

#### **Point 1:**

The scientific case for national and international significance of the general biodiversity values of the Mary River system has been recognized by its recent inclusion in two International Biosphere Reserves (Noosa and Great Sandy), its importance in providing freshwater flows and supporting the ecology of the Great Sandy Ramsar wetlands, and the large number of EPBC listed species directly impacted by the proposal. The risks posed by current water infrastructure plans to the survival of the freshwater ecosystems of the Mary River has been recognized by the nomination of the ecological communities of the Mary River floodplain being placed on the 2009 priority list for assessment as a threatened ecological community under the EPBC act.

Construction and operation of Traveston Crossing dam (as outlined in the EIS) would produce outcomes in direct conflict with federal recovery and action plans already prepared for the Mary River Cod (endangered), Coxen's Fig Parrot (critically endangered), and stream frogs of SEQ (Giant Barred Frog- endangered). These federal plans have been allowed to lapse by inaction and lack of funding support from the Qld State Government. The proposed dam would be also in direct conflict with the recovery plan for Australian Lungfish, which the Qld Government has refused to enact since its completion in September 2008. Other highly significant species threatened by this proposal for which no recovery plan has even yet been prepared include two unique cloacal ventilating freshwater turtles - the Mary River Turtle (endangered) and *Elseya albagula* (newly identified, not yet listed).

Mitigation actions for Australian Lungfish and the turtle *Elseya albagula* put in place as part of the approval conditions placed on the Paradise Dam have not been proven. The conditions with respect to lungfish are the subject of a current federal court case. Significant deaths of Australian Lungfish still occur as a result of operating existing water infrastructure at North Pine and Somerset Dams.

The likelihood of at least one of these species being driven to extinction within the operating life of the Traveston Crossing dam project, as a direct consequence of the impacts of the project, is high and foreseeable.

**Point 2:**

More progressive and drought-resilient water supply options such as water sensitive urban design (incorporating direct rainwater and stormwater capture and efficiency measures), full use of the existing built capacity in SEQ for desalination and water recycling, and expansion of local desalination capacity as required are already within the capacity of the existing draft SEQ water strategy and new planning regulations and building codes. The existing Tugun desalination plant is presently running at less than 33% of capacity and the Western Corridor recycling scheme at only approximately 15% of capacity. When Traveston was proposed in 2006, planning was based on consumption levels of more than 300 litres per person per day, and levels of 230 l/p/d were regarded as a very difficult target to achieve, even by 2020. However, since 2007 SEQ consumers have consistently achieved consumption levels of less than 200 l/p/d. At 200 l/p/d it is possible to balance SEQ supply and demand without relying on the nominal 70 GL/year supply from Traveston (which would not be available during a prolonged drought).

The small capacity (less than 1/7<sup>th</sup> the volume of Wivenhoe) and shallow geometry (5m average depth) make the Traveston proposal more of a liability during drought than an asset. Modelling conducted by the Qld government for the supplementary EIS shows that in a drought like the one experienced in the Mary basin in 2002, the dam would have failed in about 18 months. Statistics relating to how often the dam would have overtopped in recent years merely indicate how little water it takes to fill the dam, and how small its effect on flood mitigation is likely to be.

The latest modelling studies by the QWC of the performance of the SEQ water grid under drought conditions indicates the Northern Pipeline Interconnector's most immediate use would be to transport water from the Moreton Basin *to* the Mary Basin, rather than the other way around, and this has required the complete redesign of the proposed pipe network to allow this 'reverse' flow. The same conclusion was reached by an earlier hydrological study on interbasin transfers between the Mary and the Moreton basins conducted by Gilbert and Associates.

The predicted local climate change trends are for decreasing future dam inflows and increasing storage losses. This is the clear conclusion of recent studies into the water resources of the Wide Bay Region conducted by the Qld government, and recent hydrological studies conducted by NRW as part of the EIS for the Traveston Crossing Dam (up to 44% decrease in average inflows in the Mary, 7% increase in evaporation, with greatly prolonged periods of low-flows). These predictions make the Traveston Crossing proposal a poor choice of technology for the future.

Desalination is already locked into the SEQ water supply strategy: the only decision is one of capacity. The destruction of the ecosystems supported by the Mary River has not yet occurred and does not need to be part of the SEQ water supply strategy.

The energy requirement for additional desalination capacity (if required) is small in comparison to total urban energy consumption, and could be offset by a relatively small increase in the amount of energy sourced from renewables or from a small increase in efficiency in other areas. Producing all future urban water from desalination alone would account for 0.2% of urban energy consumption in 2030, while heating domestic water currently consumes 1.3% of all urban energy (CSIRO 2008). If required, less than 10% decrease in energy use for heating domestic hot water in SEQ would offset the additional energy requirement of replacing 70 GL/year from Traveston Crossing with desalinated water, even with current technology.

**All data referred to in these notes are publicly available in recent State and Federal Government reports.**

