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**The Secretary**  
**Senate Rural and Regional Affairs and Transport**  
Parliament House  
Canberra ACT 2600  
Email: [rrat.sen@aph.gov.au](mailto:rrat.sen@aph.gov.au)

Dear Sir/Madam,

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

I am writing this letter as a career ecologist and concerned member of the public. As such I do not have access to all relevant documents and information, and hence the following submission is my honest opinion, based on information that I believe, to the best of my knowledge, to be accurate at time of writing.

My aim is to provide information for the Senate Inquiry. My main concerns are outlined below. These chiefly relate to the Environmental Impact Assessment process. The main points relate to Australia's national and international obligations in respect of the Federal Environment Protection and Biodiversity Conservation Act (EPBC Act) and United Nations Convention on Biological Diversity (UN CBD) in terms of:

- Likelihood of significant increase in risks of extinction of threatened species; and
- Likelihood of significant increase in risks of habitat damage / loss to Ramsar wetland.

These risks may not be properly assessed because of:

- Lack of time for thorough environmental assessment in the EIS (6 months);
- Potential for 'conflict of interest' in the EIS process; including
- Overly optimistic assessment of environmental mitigation measures; with
- Lack of proper assessment of alternatives.

There is a strong likelihood of 'history repeating itself' with the present EIS process in respect of the previous Paradise Dam on the Burnett River, with the need for:

- Thorough environmental audit of the Paradise Dam EIS process and subsequent performance of the dam against environmental, hydrological, climatological and socio-economic criteria.

These concerns are briefly explained here below. I respectfully ask for your careful consideration, as unique aspects of Australia's and the world's natural heritage, as well as important and irreplaceable agricultural lands and the future and livelihoods of many families, are at stake.

There would certainly appear to be more environmentally and socio-economically viable alternatives to the present dam proposal, and I believe that these require more thorough assessment.

As introduced above, being an ecologist, I am particularly concerned with the increased risks of extinction that will fall on the many threatened species in the Mary River catchment and to

the species and habitats of the Great Sandy Strait Ramsar wetland, if the dam was to proceed. Such extinctions and changes to wetland habitat would be major irreversible losses to Australia's and the world's natural heritage. Such losses would be in clear contravention of federal (including the EPBC Act) and international legislation and conventions to which Australia is signatory, such as the Ramsar and Biodiversity (UN CBD) Conventions.

In light of the above, the proposed dam has been deemed a Controlled Action under the Federal EPBC Act, and thus should be thoroughly and carefully assessed.

The dam proposal also lies within the scope of at least 4 other major federal policies:

- National Biodiversity and Climate Change Action Plan (NBCCAP)
- National Agriculture and Climate Change Action Plan (NACCAP)
- National Action Plan for Salinity and Water Quality (NAPSWQ)
- National Water Initiative (NWI).

These policies, for which the Queensland and federal governments have mutual obligations in the form of bilateral agreements, may be contravened by the proposal.

#### ***Assessment of risks of extinction***

Importantly, the draft Terms of Reference (ToR) for the Environmental Impact Assessment (EIS) for the proposal do not include specific reference to the rigorous, quantitative assessment of such risks. In the case of threatened species and habitats for example, risks of extinction can be mathematically assessed through conduct of Population Viability Analyses and Population and Habitat Viability Assessments (PVA and PVHA). These were not mentioned in the draft ToR. I expressed many of these concerns in my submission to the Queensland Coordinator-General in respect of the draft ToR, the preamble and summary of which are copied here below. At time of writing this submission, the Final ToR for the EIS have not been released by the Queensland Government.

#### ***Inadequate time for EIS***

Although the Final ToR have not been released, the entire environmental assessment process, including writing of the draft EIS report, is apparently to be completed by October 2007 (according to the [www.qldwi.com.au](http://www.qldwi.com.au) website, 22<sup>nd</sup> March 2007), a period of approximately 6 months from now. This is clearly insufficient time for a thorough assessment of impacts. Indeed, given the lack of baseline biological, ecological and environmental information and the long life cycles of several of the threatened species, an EIS process of several years' duration would be required for a thorough assessment, including collection of data and conduct of rigorous PVA and PVHA. Without such analyses, there is no objective way of quantitatively assessing the likely risks of extinction to the threatened species and habitats. In my opinion, this would be a clear abrogation of state and federal responsibilities under the EPBC Act, and international obligations under UN CBD.

#### ***Potential for 'conflict of interest'***

Moreover, the proponent, Queensland Water Infrastructure Pty Ltd (QWIPL) and the Queensland State Government appear, to all intents and purposes, to be one and the same. As I understand the situation, QWIPL has been granted powers to advance the proposal, while the Queensland Coordinator-General will be the main arbiter of the EIS. This would appear to have a high potential for conflict of interest in respect of an objective assessment of the environmental (in its broadest sense, encompassing biodiversity, climate change – hydrology and socio-economic) impacts of the proposed dam. Statements reportedly made by the Premier of Queensland that the dam will proceed have raised further uncertainty in respect of the objectivity and impartiality of the EIS process, given that Queensland Government employees will be assessing the EIS. If these reported statements are correct, then this would appear to be a clear pre-emption of the entire EIS process. Such an outcome also has the

potential to contravene the EPBC Act and Federal – State bilateral agreements and policies, as listed above. In short, the Queensland Government should not be the assessor of the ‘environmental impacts’ (in the broadest sense) of a proposal for which it is also (effectively) the proponent. This in turn suggests the need for a thorough review of the entire State – Federal bilateral agreement process.

***Environmental Audit of Paradise Dam***

In all the above regards, there appears to be significant risk of ‘history repeating itself’ in terms of many aspects of the present proposal and the previous Paradise Dam on the Burnett River to the north. That project appears to have major ecological, hydrological and socio-economic problems. These likely stem in large part from the original environmental impact assessment process for the Paradise Dam. It is my understanding that, among other assessment oversights, no formal population or habitat viability analyses were undertaken in respect of threatened species and habitats, despite the very real threats the project posed.

It could prove highly instructive, if deemed appropriate, to gain the perspectives of the Queensland Government-employed scientists from Department of Primary Industries and Department of Environment and Heritage in respect of the environmental assessment and permissions process for Paradise Dam, and indeed its performance against environmental, hydrological and socio-economic criteria. In short, a thorough environmental audit of the project could prove highly relevant to the Traveston Dam EIS process.

***Optimistic assessment of environmental mitigation measures***

It now seems apparent, with the benefit of hindsight, that the Paradise Dam environmental assessment was overly optimistic in terms of the ability to mitigate against the environmental impacts of the dam (eg. Construction of fish ladders for Queensland Lungfish). From the hydrological perspective, it is also apparent that there was a failure to fully consider and analyze the effects of climate change in the region. Unfortunately, these unsatisfactory outcomes appear to be likely results of the present EIS process, unless there is a far more rigorous effort in conduct and objective assessment of the EIS.

***Capacity of Department of Environment and Water Resources to administer EPBC Act***

Of additional concern in respect of assessment and review of the EIS, a recent report has apparently highlighted the lack of capacity in the federal Department of Environment and Water Resources to adequately administer the EPBC Act in respect of threatened species (according to ABC Radio news report of 30<sup>th</sup> March 2007). Thus, there is a real risk that a flawed, overly optimistic EIS will be produced, inadequately assessed and subsequently accepted by state and federal governments.

I respectfully ask for your careful consideration of these important issues, as unique aspects of Australia’s and the world’s natural heritage, as well as irreplaceable agricultural lands and the future and livelihoods of many families, are at stake.

In closing, there would certainly appear to be several more environmentally and socio-economically viable alternatives to the present dam proposal, and I believe that these require more thorough assessment. Please do not hesitate to contact me for further information, if required. Many thanks for your consideration.

Yours sincerely,



Lyndon DeVantier, PhD

## **Summary and preamble to submission to Queensland Coordinator-General re Draft ToR for the EIS**

I am writing this submission in accordance with the procedure for public comment as outlined by the Queensland Government and Queensland Water Infrastructure Pty Ltd, the proponent of the proposed Traveston Crossing Dam project. I respectfully ask that my submission receive careful consideration by the Coordinator-General of the Queensland Government and other interested parties and stakeholders in the EIS process.

My main aim in writing this submission is to ensure that the final Terms of Reference for the Environmental Impact Statement (EIS) prescribe specifically that the EIS process:

- a) collects and collates sufficient appropriate biological (e.g. life-history), ecological (e.g. habitat requirements during different life stages) and environmental (e.g. habitat distributions, flow regimes, etc.) data to be able to
- b) formally assess the likely risks of extinction of threatened species through conduct of Population Viability Analyses (PVA) and Population and Habitat Viability Assessments (PHVA) for the threatened species and habitats (under state, national and international criteria) that may be affected by the proposed project, in accord with
- c) The Precautionary Principle and statutory obligations under state and national legislation and international conventions. These various PVA and PHVA should be of sufficient detail to satisfy rigorous independent review by internationally recognized specialists in the field of Conservation Biology.

My concerns most closely address EIS objectives (ToR p10), dot point 1 (For interested persons and bodies: ...) and dot point 4 (For the Federal Minister for the Environment and Heritage: ...) and Section 3 Environmental Values and Management of Impacts.

The Draft Terms of Reference are insufficiently detailed and specific in their wording, with no mention of PVA and PHVA therein. The draft ToR present a large number of dot points (e.g. Section 3.3 pages 34-45) in respect of collation and collection of information, but little on formal synthesis of this information, particularly in terms of ecological risk assessment and management. This is particularly the case in the types of analysis that need to be conducted to provide sufficient information for an accurate assessment of the likely risks of extinction of the threatened species, as indeed the natural communities and habitats of the dam site and those that may be affected both up- and down-stream by physico-chemical changes in environmental flows.

The section on Hazard and Risk (3.12 page 63) similarly does not include requirements for PVA and PHVA, even though these are well suited to such assessments, as outlined in more detail herein.

In my opinion, failure to conduct rigorous, scientifically defensible PVA and PHVA for the threatened species and habitats would likely not allow objective assessment of the proposal and may also be deemed as an abrogation of responsibilities under the relevant national legislation and international conventions.

Furthermore, given the lack of detailed biological, ecological and environmental data on which to base the PVAs and PVHA (see later), a time period of 6 months for the EIS process is clearly insufficient to adequately address the risks of extinction to threatened species and impacts to the Ramsar wetland and World Heritage site.

In that respect, and given state, national and international obligations to conserve such species and sites (as outlined later herein), I respectfully recommend that either:

- a) the time for the EIS process is expanded significantly to allow appropriate biological, ecological and environmental data to be collected and modeled using PVA and PVHA; or
- b) the dam proposal be rejected, saving a large amount of time and money, and allowing more feasible and environmentally-sensitive water-supply alternatives to be rapidly introduced.

The latter recommendation is made in respect of the Precautionary Principle, and is consistent with one of the possible outcomes of the EIS - that the application for development be refused (ToR page 3, Administrative Procedures), either by the Coordinator-General or subsequently by federal government intervention through the EPBC Act. In that event, the Coordinator-General could consider recommending that those properties already purchased by the State Government be included in protected areas, consistent with the 'National Strategy on Conservation of Australia's Biological Diversity' and 'National Objectives and Targets for Biodiversity Conservation' (<http://www.deh.gov.au/biodiversity/publications/strategy/goal.html>; <http://www.deh.gov.au/biodiversity/publications/objectives/index.html>).

My detailed comments on the ToR follow. Many thanks for your careful consideration.

Yours sincerely,

Lyndon DeVantier