Submission No. 26 TT 25 June 2008

In reply please quote: 08/8183 Your reference

August 2008

Mr Kevin Thompson Secretary of the Joint Standing Committee on Treaties PO Box 6021 Parliament House Canberra ACT 2600



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Dear Mr Thompson

Thank you for the invitation to provide a submission to the Federal Parliament's Treaties Committee on the Kyoto Protocol. The information provided below specifically addresses the issue of the current state of climate science.

Agriculture and grazing in the Murray Darling Basin (the Basin) generate approximately \$14 billion annually, 40 per cent of Australia's agricultural income. Agriculture in the Basin uses 70 per cent of Australia's irrigation water. The Basin is extremely important for indigenous and rural communities, tourism, manufacturing and mining. The environment of the Basin is highly diverse with a number of world heritage listed sites and important biosphere reserves.

The Murray Darling Basin Commission is investing in understanding the current climate of the Basin and the likely causes and impacts of climate change on the Basin's water resources. The South Eastern Australian Climate Initiative (SEACI) is a three year \$7 million research program jointly funded by the MDBC, Victorian Department of Sustainability and Environment, the Australian Government Department of Climate Change, Managing Climate Variability Program of Land and Water Australia, CSIRO and the Bureau of Meteorology. SEACI is due to be complete at the end of 2008 and the existing partners are currently considering investing in a second phase of SEACI.

SEACI is the only coordinated regional scale climate change science program for the Basin and Southern Victoria. Findings to date suggest that large scale drivers of south eastern Australian climate are already being affected by global warming, reducing rainfall and runoff in the southern Basin and Victoria. This is having serious consequences for the Basin's communities and environment. Average annual inflows to the River Murray system are 11,100gl (estimated over the period 1891-2007). In 2006/07 inflows to the River Murray system were approximately 1000gl (only 9 per cent of average annual inflows).

Current analyses in both SEACI and the Murray Darling Basin Sustainable Yields Project (funded by the National Water Commission and Department of Natural Resources, Heritage and the Arts and is being undertaken by CSIRO) suggest that under high emission scenarios average annual runoff in the Murray Region could be reduced by as much as 37 per cent by 2030.

It is imperative that Australia continues to invest in regional climate science and that this is done in a coordinated and collaborative way. Regional climate science will enable government, business and communities to assess the potential impacts of changing climate and develop appropriate responses.

If you require further information please contact Katrina Maguire, Senior Manager, Climate Change Program on email <u>Katrina.maguire@mdbc.gov.au</u> or telephone 02 6279 0149.

Yours sincerely

Les Röberts Acting Chief Executive