

20 November 2003

Mr Jerome Brown  
The Committee Secretary  
House of Representatives Standing Committee  
On Science and Innovation  
Suite R1 – 116  
Parliament House  
CANBERRA ACT 2600

Dear Mr Brown

**Re: Inquiry into coordination of the science to combat the nation's salinity problem**

Thank you for the opportunity to provide comment on the above subject. The Murrumbidgee Catchment Management Board supports the Inquiry's intent to ensure that interventions to address salinity problems are informed and supported by the best scientific knowledge and expertise. The Board, as a whole, has not had sufficient time or opportunity to discuss the inquiry terms of reference in detail, however, we provide the following for your information. Please recognise that these comments were developed at the Board's Executive level and do not represent the collective opinion of the Board.

In order to appreciate the comments provided we wish to briefly outline the role of the Catchment Management Board. The Catchment Management Board is a strategic advisory body to the Minister for Natural Resources. The Board has responsibility for developing an integrated catchment management plan (*the Catchment Blueprint*), developing a greater understanding within the community of issues and actions for addressing issues and providing strategic investment advice. We seek information from various organisations particularly the Department of Infrastructure, Planning and Natural Resources to inform our decision-making processes. We understand that DIPNR are preparing a submission to your inquiry.

**How is scientific knowledge being utilised in the development, management and implementation of salinity programs.**

The *Murrumbidgee Catchment Blueprint* includes a range of management actions to address specific salinity targets (refer to pages 25 – 27). These targets and actions have been developed over an extended period using all basic science and applicable knowledge available at the time to inform the decision making process.

A Salinity Technical Working Group (TWG) was established to provide information and recommendations to the Catchment Management Board in this regard. The TWG consisted of a range of members from six different organisations with expertise in salinity and was essential to ensuring scientific knowledge was incorporated into planning processes. The TWG were also involved in developing projects for the Board's 3 Year Investment Strategy.

Primary references and support data sets used in developing targets and actions are outlined in the *Murrumbidgee Catchment Blueprint Appendix* (refer to pages 63-65). Background information that summarises the array of potential biophysical target areas considered in the Blueprint development are described in the document *Technical Addendum – Technical Supporting Document for the Murrumbidgee Catchment Blueprint*.

The use of the CATSALT model (Developed by DIPNR) in the Kyeamba Valley Priority NAP Project, have allowed scientific knowledge to underpin decision making in order to target works in the landscape. Within this project actions taken at specific locations (on farm level) can be assessed and a predictive impact determined. Investment will be targeted to allow salinity to be managed while maintaining fresh water yields which will result in improved dryland salinity as well as water quality outcomes. It provides a transparent process for the investment of public funds ensuring funding priorities are allocated according to likely return on investment. The mechanisms for the application of modelling information for prioritisation need to be carefully considered in order to manage natural resource management priorities, community requirements and expectations.

Refinement of models such as CATSALT, provide an avenue for applying scientific knowledge to the farm level. There has been a shift from understanding salinity processes to understanding salinity on a spatial scale. This has been a significant advance of recent times, although at this point in time it's application is not adopted widely.

The *Murrumbidgee Catchment Blueprint* lists a large number of knowledge gathering activities against each Management Target for salinity (refer to pages 26 – 27). Continued investment and support in these areas is required however knowledge gathering will need to be set according to the greatest impact on the salinity outcomes desired.

The ability to undertake adaptive management is essential in ensuring natural resource management investment is maximised. There is a need for ongoing collection and interpretation of information to direct activities in the most appropriate way and provide baseline information for implementation and monitoring. The requirements need to be developed to assess performance. For example, with long lag times and large climatic variables it will be difficult to monitor performance at the end of system. There needs to be performance assessment closer to the area of landscape change however there will be a balance between the high cost of this information versus using assumptions and modelled data.

#### **Nature and effectiveness of relationship between scientists/technologists and those implementing salinity interventions.**

Communication is possibly one of the greatest impediments to maximising on-ground outcomes in natural resource management (other than economic pressures). It is a perpetual risk in a field that involves many organisations, individuals and programs. The establishment of Salt Teams as brokers for research and extension has certainly improved the situation – with results likely to exhibit more in the future. However, we still find that utilisation of these Salt Teams is not optimal and intend to address this in the future.

The gathering of knowledge about the physical impact of options is of little value if considered in isolation from social and economic impacts. Plantation forestry, for example, is recognised as a means of reducing recharge however there are many communities and individuals who do not favour such an option because of perceived social impacts on their communities. They may favour perennial pasture options. Unless other options are available and presented the Commonwealth and State investment is unlikely leverage commensurate private landholder co-investment in salinity intervention. Therefore knowledge gathering on processes and applications to address salinity must include elements of market research to assess community acceptance of the options available.

**Distribution of current research across jurisdictions/organisations to decisions makers.**

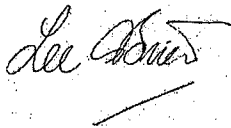
The use of a Salinity Technical Working Group facilitated a forum for multi-organisational input into decision-making processes of the Murrumbidgee Catchment Management Board. Membership includes Department of Infrastructure, Planning and Natural Resources, NSW Agriculture, Murrumbidgee Landcare Association, Environment Protection Authority, Centre for Natural Resources, Wagga Wagga City Council and Riverina Eastern Regional Organisation of Councils.

**Adequacy of scientific and technical support for those implementing salinity management options.**

The Board has been satisfied with the level of input provided by the Salinity Technical Working Group to the development of strategies and projects to achieve the Catchment Blueprint targets. Overall salinity management (including scientific and technical support) receives relatively good cross-organisational team support and funding.

There appears to still be a tendency to gather and apply knowledge based on single issues such as salinity. We need an integrated approach to natural resource management that recognises that biodiversity, ecosystems and natural resource conditions are intrinsically linked. Knowledge across all issues/fields must be combined to capitalise on synergies and provide information for the best distribution of investment.

Yours sincerely



Lee O' Brien  
Acting Chairperson  
Murrumbidgee Catchment Management Board