

**Submission to the House of Representatives Standing Committee on Agriculture
Fisheries and Forestry**

Inquiry into future water supplies for Australia's rural industries and communities.

The Arid Areas Catchment Water Management Board plays a key statutory role in the management of water resources within the northern 80% of South Australia. The Board has specific legislative responsibilities under the South Australian *Water Resources Act (1997)* to ensure the efficient and sustainable use of water.

Whilst the provision of water supplies is not the province of the Board's activity per se, in the region for which it has statutory responsibility it is difficult to talk about the management of the water resources with the community without discussing issues pertaining to the water supplies in the various towns and settlements. For this reason the Minister has charged the Board to act in a facilitating role with regard to these issues.

The question of water availability and sustainable supply to rural communities, industry and the environment is of vital importance to the Board. This is reflected in the goals of the catchment water management plan, which is the statutory instrument through which the Board implements its planned actions. The Board has completed the Proposal statement for the Catchment Water Management Plan for its area and is now developing the Plan collaboratively with the government, industry and community to ensure that plan reflects the needs of the stakeholders of the region (see Appendix A).. Feedback from the community has clearly indicated that water availability and supply is a relevant and pressing issue.

Background.

In SA, there are around 35 outback towns. Most towns have centralised infrastructure for the provision of water which is supplied by a number of agencies including Local Government, SA Water, Progress Associations and private businesses (as can be seen from the list attached). The variety of institutions involved in providing water to the communities of SA's north and the range of costs charged are an indication of the piecemeal approach that is currently taken for service delivery in South Australia.

The majority of the outback towns are reliant on limited local supplies of either groundwater or surface water. Their relatively small populations and geographic isolation means that it is uneconomic to transport water over vast distances to them. In short, this means that these communities are more vulnerable to water shortages and water quality problems than less isolated communities. They also face higher water costs than metropolitan or country areas, for often poor quality inadequate water supplies. The situation has important health, lifestyle and economic implications.

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Discussion

Residents of many of the smaller towns are experiencing problems of supply due to inadequate infrastructure and/or insufficient water resources. Pipes, tanks and dams are either aging or suffer from neglect and require maintenance and / or upgrading. Water supply to outback towns is a major constraint to their social and economic development.

Rainwater tanks, although a viable alternative are expensive and due to the arid conditions do not provide a significant source of water. In remote areas maintaining the quality of water supplies harvested from infrequent rain events is also a problem. However, they are vital in communities that do not have an alternative supply .

The community response to the marketing of outback tourism by governments and the private sector places an additional strain on inadequate water supplies. There has been little additional resources to supplement water supplies to match the encouragement of outback visitors. Towns often struggle to supply water during peak times.

Relatively large populations in Far North Aboriginal communities rely on groundwater supplies. Many of these supplies are of poor quality and inadequate. Evidence exists to suggest that aboriginal reliance on soft drinks as an alternative to poor, foul tasting and inadequate water supplies leads to health problems later in life.

In some Aboriginal communities within the region water quality do not meet ANZECC drinking water guidelines with high levels of coliform and nitrates. Groundwater supplies have presumably been contaminated. There is a need to extend water treatment services to the communities experiencing these problems (Fitzgerald et al 2000). These aboriginal communities still experience higher morbidity rates and continue to die at a younger age than non-aboriginal Australians (Fitzgerald et al 2000). Improvements to the quality of the water supply and also allocation to a greater diversity of uses has the potential to increase levels of hygiene and health.

Although monitoring of these resources is occurring, long term monitoring is required to determine whether the resources are sustainable in the future. There is uncertainty regarding the ongoing viability of current supplies and water searches have revealed alternative supplies are scarce. .

A number of towns with significant populations including Roxby Downs, Leigh Creek, Andamooka, Lyndhurst and Copley share their water supplies and to a greater extent their water infrastructure with the mining industry. Therefore appropriate and sustainable management of industrial water is crucial to maintain adequate supplies for domestic users. Uncertainty about rights and responsibilities concerning shared water supplies has created some community concern. In particular the Progress Associations within Lyndhurst and Copley are concerned that their water supplies will be cut off should planned expansions of these industries proceed.

There are also significant issues in regard to the water quality. The towns that rely on groundwater sources often have problems with high levels of dissolved solids and other mineral components. In the case of large centres such as Roxby Downs, Leigh

Creek and Coober Pedy water is desalinated and treated prior to drinking. However, in the cases of smaller townships treatment is not economic resulting in poor water quality, even though the cost to the consumer may be relatively high. Impurities in water can cause bad smells and tastes that makes showering and drinking unpleasant or directly effects health. Minerals can also damage equipment such as air-conditioners.

Towns relying on surface water runoff also encounter considerable water quality problems, particularly when supplies are low. Water bourne disease associated with faecal coliforms and other pollutants may render the water unfit for direct consumption, requiring boiling before consumption. In general towns and communities that rely on such systems generally suffer water that is of poor quality either in terms of turbidity or mineral content.

Climate change is occurring and will undoubtedly change water patterns and human uses of water. The management of potable water resources therefore needs to be capable of adapting to these processes. Thus new technologies and adequate monitoring is necessary.

There is potential for improved water supplies to remote communities via options such as run-off enhancement, loss minimisation, off-peak storage, waste-water recycling, dual water supply systems, water quality improvement, water conservation, and access to local and improved conventional water resources (Van Der Wel et al 2002). A coordinated effort by all levels of Government is required to provide these communities access to good quality water supplies.

In consulting the community during the early stages of the development of the Board's catchment plan, the Board has been clearly told that this issue is paramount in the development of the region. It is also clear that these communities are willing to meet at least some of the cost of the provision of good quality water.

Conclusion

It is our view that a coordinated approach between governments, the water industry and the communities along with a well developed strategy of rolling capital investment could address many of the current inequities and help to supply water for the growing tourism industry and other developments in the region.

The solution to these problems is technologically feasible. Given that in many cases there are adequate supplies of water in the vicinity of the towns, it is the quality of that water that is the problem. A consistent approach for outback communities would go along way to addressing many of the problems if it provides:

- the application of current desalination and other treatment technologies, and
- a cost-recovery investment fund that communities could use a repay as a water access charge

An appropriate schedule of training and support will also be required to ensure that the investment is not jeopardised through neglect or inappropriate maintenance.

ADDITIONAL INFORMATION HELD BY THE SECRETARIAT

Attachment to Submission No. 108 - Arid Areas Catchment Water Management Board

Proposal Statement - South Australia Arid Areas Catchment Water Management Plan, Far North Water Resources Component
4 November 2002.