D.N. Menz MIEAust, CPEng

PO Box 117 Clare SA 5453
(08) 8842 2929
envirciv@capri.net.au

To House of Representatives Standing Committee on Environment and Heritage

SUBMISSION ON CATCHMENT MANAGEMENT

Introduction

This brief submission supports a national approach to acceptance and implementation of catchment management throughout Australia. In the context of this submission, the terms Integrated Catchment Management (ICM) and Total Catchment Management (TCM) and Catchment Management (CM) are one and the same. If there is a preference for terminology, I would choose TCM because it implies a "total", or all-inclusive, approach to resource use and biodiversity.

I have addressed some specific issues in some of the terms of reference. As a nation with acknowledged enormous environmental issues, I believe too many opportunities to achieve sustainable resource and natural resource use have passed by. I will endeavour to highlight these, in addition to adding some examples of inadequate responses to environmental and catchment issues from my own state of South Australia. These issues are the same in other parts of our nation.

Development of CM

- During the 1980s and 1990s there have been a range of methods adopted by state governments in Queensland, New South Wales, and Victoria to engage communities in a CM response. I am familiar with the models presently used in NSW and Victoria, where I lived for ten years until 1997.

  States have approached CM differently ; there are different systems in each of Qld, NSW, and Victoria. Consider the following list :
  - Qld has ICM with catchment co-ordinating committees
  - NSW has CM Committees and Trusts, supported by land and water management planning groups
  - Vic now has CM Authorities (formerly Catchment and Land Protection Boards), having used the vehicle of catchment co-ordinating committees from 1989
  - SA has concentrated almost exclusively on catchment water quality in recent years, as evidenced by their few Catchment Water Management Boards, and has not embraced CM as an integrated system
  - WA has a sub-catchment planning approach supplemented by the community groups, such as the Land Management Society

- States have different ways of managing land and water management issues, including natural resource management (NRM) – biodiversity, revegetation, coastal issues, water resources, sustainable agriculture etc. This is in response to different policy, economic, and environmental imperatives.

- Catchments spanning state boundaries are subjected to differing environmental legislative and administrative frameworks. We need look no further than the enormous problems of the Murray-Darling Basin. This is not conducive to effective implementation of CM.

- In this Decade of Landcare, we have seen a very successful system emerge at the grass-roots level, but because it has been a "volunteer" system I believe it has not embraced a total catchment management approach in many rural regions of Australia. In my region of SA (Mid

North and adjoining areas), Landcare has not been included as a regional movement, but only on a few selected sites.

This brief perspective indicates that there has not been, nor is there, a uniform national approach to CM. Six decades or so of somewhat serious contemplation of environmental issues has yet to produce a cohesive system of land, water, and natural resource management in this country.

The Value of CM

There is a large quantity of research and information available on CM, including case studies, administrative arrangements, community networks, and so on.
To my knowledge Victoria is the only state to have formalised a state-wide catchment management system with its Authorities framework. Many CM entities have arisen out of the declining quality of water e.g. Victoria's "State of the Rivers" report of 1983, South Australia's Catchment Water Management Boards.
Whilst TCM as a system is acknowledged as still in its infancy, I believe that sufficient progress has been achieved in taking the next step – and that is to structure a sustainable partnership between the broad community and federal, state, and local governments. There is really no alternative in achieving ecologically sustainable development (ESD) without TCM. But the task is how to enmesh state and federal policies, the community, and our knowledge of catchment behaviour.

Consider an example that highlights a difficulty in valuing TCM. In my region of SA, TCM has no application outside of metropolitan Adelaide, and only here is one component of TCM applied and that is in water management. Broadacre farm catchments have not been included in a TCM model.
The system of land management in rural SA is focussed around Soil Conservation Boards, whilst the system of water management is centred on Water Allocation Plans (i.e. equitable and economic sharing of a natural resource). The state's Water Resources Act 1987 separates land and water rights, it separates one natural resource from another and consequently I believe renders TCM a degree of irrelevancy. The focus in SA is out of step with that of the eastern states, and again I believe this is to the detriment of achieving a co-ordinated and integrated system of land and water management.

Whilst not denigrating the value of soil conservation groups, I believe this system is past its optimum life and does not provide what is required now and for the future, and that is an **integrated** approach to natural resources and catchment management. A substantial change in political will and government priorities will be significant steps into introducing TCM into SA.

My conclusions are :

- CM is a national issue and processes must be structured to ensure that the federal government plays a pivotal role in environmental protection and ESD.
- There must be participatory decision-making.
- TCM can be invigorated with the 1980s "communities of common concern" principle.
- TCM can not be left to states alone to implement, there must be leadership from the federal government.
- A TCM approach would allow an understanding to develop of inter-catchment relationships, and develop stronger community involvement.

Best Practice Methods

There are many case studies and experiences available from around the nation on CM, and CSIRO of course has been pivotal in the research and understanding of catchment responses.
CSIROs 1996 publication, "Indicators of Catchment Health – a technical perspective", provides essential information for any TCM program.

I commend all the positive environmental work and investigations that have occurred, but I consider that much of it would achieve a higher level of importance and application if combined into a TCM response. This means combining projects such as the following to achieve optimum results :

- Local Agenda 21 programs (by local government)
- Environmental Management Systems (EMS)
- Regional environmental strategies
- Local conservation strategies
- Waterwatch, community environmental monitoring
- Landcare, Rangecare
- Greening Australia, Trees for Life projects

A TCM entity would have the capabilities to extract contemporary methods and research from organisations such as CSIRO, and apply them at the catchment scale. This has been the case in catchments supported by a total management system (e.g. along the eastern sea board and south-east Australia), but the same opportunities have not been available to the less populated rural regions, and again I refer to rural SA.

Resourcing

I contend that CM should have been introduced as a national program either at the same time as NHT evolved or as a replacement for it. It is clear that those states and regions in Australia with the highest risk of environmental decline of waterways and water catchments have had no alternative but to implement a CM system (e.g. Victoria, coastal catchments of NSW).

It would be appropriate to divert funds from the NHT program and the federal government's environment program to establish a national CM network. Funding for piecemeal projects (e.g. in my region a recent NHT funded project involves "sustainable farming practices" in a small part of a much larger catchment) is not conducive to overcoming the long term problems in catchment management planning. Again, in my region some of these are : human attitudes, regeneration of woody vegetation and native grassland to achieve integrated pest control, conservation of water supply quantity and quality, re-establishment of biodiversity, recognition of dryland salinity, inappropriate land management practices, soil acidification.

In the interests of fairness and equity, I suggest that those states with an established CM system should continue to receive NHT funding (or whatever follows it), but those states such as SA without a TCM system should have their NHT funding diverted to the establishment of the system. Whether they be called CM Authorities, or Trusts, or Boards, it does not matter, but what is important is the establishment of a sustainably resourced organisation funded initially by federal, state, and local governments. The usual catchment levy approach can then be applied.

Summary

Catchment management makes unarguable sense at our moment in time. We are told that human consumption and resource use on this continent have reached the point that threatens sustainable ecosystems, and the present plight of the Murray River and the dryland salinity problems of WA support this contention. A nationally implemented program of Catchment Management provides us with our best chance, and may be our only one, to apply best practice to achieve a semblance of ecologically sustainable development.

A CM system may accelerate the rate of change of human attitudes and resource management practices, but importantly to offer a cohesive and co-ordinated system to our nation's communities, particularly those in rural regions. We may even have a chance to reverse the annual net loss of vegetation caused by the aspect that has caused all our environmental problems – land clearing.

To this end I commend the implementation of catchment management on a national scale to the Standing Committee.

Des Menz MIEAust, CPEng July 29, 1999