

*Prof J R Burton
28 Glen Innes Road
ARMIDALE 2350*

*Tel (02) 6772 6275
Fax (02) 6771 1591
e-mail jburton@northnet.com.au*

29 July 1999

The Secretary
House of Representatives Standing Committee
on Environment and Heritage
Parliament House
CANBERRA ACT 2600

Dear Sir,

I am writing to make a submission to the Standing Committee on the topic of Catchment Management.

I believe I can claim to be one of the originators of the Integrated Catchment Management approach in Australia. My first paper on the topic was published in 1963. Over the next decade I gave many keynote addresses and after-dinner speeches on the topic, particularly to the annual conferences of the Flood Mitigation Authorities of NSW and the NSW Soil Conservation Service. In 1985 I was engaged as a consultant by the then Commissioner of the Soil Conservation Service, Mr Doug Longworth, to prepare a detailed position paper on the topic of "Development and Implementation of Total Catchment Management Policy in New South Wales". This document, which I would argue came to be accepted as "the bible" on the Integrated Catchment Management approach, was subsequently the basis for the Total Catchment Management Policy introduced by the then New South Wales Government in 1986. On the basis of that contribution, I have often been introduced as "the father of integrated catchment management in Australia".

Since that time, I have written many other papers on the topic. I have acted as a consultant to both the New South Wales and Queensland Governments on the implementation of the approach in those States. I have also acted as a consultant to the Hawkesbury-Nepean Catchment Management Trust and the Upper Parramatta River Management Trust in reviews of their activities. I was a member of the consulting team which undertook a review of the NSW Catchment Management Act in 1996. Regrettably, the NSW has chosen to ignore most of the recommendations of the

consultants, and indeed has never made their report public. This I believe to have been a most unfortunate decision, and I will expand upon it later in this document.

I have enclosed a copy of a paper I presented in 1991 which fairly well explains my philosophy and general policy approach to ICM. I have also enclosed a list of all my publications on the topic. Some of these are no longer readily available, but I could assist in providing photocopies should the Committee require it.

I will not take the space here to expand upon the philosophy I have propounded elsewhere, but I should like to make several comments in relation to the way that approach has been developed in Australia, and particularly in New South Wales.

By and large, whilst I applaud the extent to which it has been adopted by State Governments, I am deeply disappointed at the ways in which it has been implemented. Many politicians and agency officers, as well as many members of valley communities, appear to have missed the point completely. It seems to me that very few of the current proponents of the ICM approach or the current ICM practitioners really understood what is all about.

There appears to be a widespread misconception that integrated catchment management is about the amalgamation of the management of all land and water resources under the control of a single unified organisation and that it seeks to manage all the components of the catchment system at once in some sort of grand, comprehensive orchestration.

The folly of this misconception is evident in the lack of progress with the implementation of the Total Catchment Management Policy in New South Wales, where a great deal of effort has gone into the organisation of a catchment management committee hierarchy but few practical, on-the-ground management results have been achieved. It is also evident in the increasing thrust towards the amalgamation of Councils and committees at Federal level, of which the Agriculture and Resource Management Council of Australia and New Zealand, which has swallowed up the former Agriculture, Water Resources and Soil Conservation Ministerial Councils and more seriously, their Standing Committees and their many technical and advisory committees, is the most disastrous example.

Integrated Catchment Management is not about amalgamation or unification; it is about co-operation and co-ordination. And it is not about trying to do everything at once, like a one-armed musician playing a pipe organ; it is about taking a holistic view of land and water resource management issues within a whole-catchment context, and managing specific resource management problems within that context. In a nutshell, it is about seeing the Big Picture of the catchment, and making individual resource management decisions within the context of that big picture.

Professor Bruce Mitchell, a Canadian authority on integrated catchment management, describes this approach to resource management in terms of what he calls "The Three Ps"; Philosophy, Process and Product.

The philosophy of ICM appears to be well understood. It envisages the river basin as a system whose components interact via a number of biophysical processes which include the hydrological cycle, the energy cycle, the nutrient cycle, the carbon cycle and a variety of ecological webs and food chains. Land use and resource development may interfere with these processes and, because of the interactions they involve, may have wide-ranging and often unexpected results. The most striking example we have in Australia of this kind of interaction is to be found in the extensive algal blooms that have recently occurred along 1000 km of the Darling River.

As well as being a philosophy or way of thinking about land and water resource management problems, ICM must be recognised as a process. It has to be an ongoing, dynamic process which must be flexible and adaptive to cope with developing conditions and circumstances. It is a process which involves the co-ordinated activity of a great many people, at various levels of Government and across a wide community spectrum, which includes those who have responsibility for land and resource management decisions and those who are potential beneficiaries of good management practice or potential victims of poor management decisions. At all levels, it requires the input of considerable management skill and expertise within specific disciplinary areas. The idea that some kind of jack-of-all-trades can handle the entire gamut of catchment problems is entirely misleading; the integrated catchment management approach requires that we input at least as much specialist expertise in areas such as hydrology, river engineering, water quality management or soil conservation as we did before, but also requires that the work of experts be undertaken within the "Big Picture" context and in co-ordination with the work of other experts. The biggest single reason for the lack of progress with the implementation of integrated catchment management in eastern Australia is that State Governments have not accepted this fact and have reduced, rather than increased, the manpower resources available for catchment management activities. There is a lot more to ICM than having nice warm thoughts about it and expecting the community at large to pick it up and run with it, with the help of a little "funny money" from the Federal Government to keep everybody enthusiastic. It is going to cost, and it is going to hurt, if we are ever going to make any progress with it.

The "Products" of ICM ought to be improved catchment and river management practices. We must be wary of placing too much emphasis on the preparation of catchment management plans, which must be seen as means to an end, rather than ends in themselves. General Eisenhower once said that "in preparing for battle I have always found that plans are useless but planning is essential". In the catchment management business, it is all too easy to get bogged down in the detail of preparing comprehensive and all-embracing plans - which some people attempt to develop into a career - whilst the critical and obvious problems escape our attention. This is not what integrated catchment management is all about. The Big Picture is what it is all about!

In my original proposals for the implementation of ICM in New South Wales, I envisaged that there would be one Catchment Management organisation for each of the major river basins of the State, a total of 16 in all. When the TCM Policy was announced

by Premier Wran, he also indicated specifically that that number would be set up. In my original plan, I envisaged that these authorities would have some kind of rating base as their principal source of funds, that they would have a small membership and employ a small staff, and they would be supported by a Community Advisory Committee providing catchment community input. A similar model, on a larger scale, is the present structure of the Murray-Darling Basin Council with its Commission and Community Advisory Committee.

When the NSW Catchment Management Act was promulgated, however, it provided for two kinds of valley-based committee, the Catchment Management Committee and the Catchment Management Trust. The former had no funding base, could employ no staff or undertake works, and comprised a large number of members who included a majority of valley landholders. At the present time there are more than 40 such Committees, some responsible for very small areas indeed. Whilst they appear to do a great deal of talking, and most of them have undertaken resource inventories, there is no evidence that any of them has produced anything useful. Whilst some of them have produced some form of Catchment Management Plan, there is no evidence that any such plan is being implemented. In any case, a Catchment Management Plan in NSW has no legal standing whatsoever; in order to implement a plan, it must be presented under some other guise such as a Regional Environmental Plan made under the EPA Act, and to the best of my knowledge no Catchment Management Plan has been formalised in this way.

The Catchment Management Act also provides for another kind of management authority called a Catchment Management Trust. A Trust has a smaller membership than a Committee, can employ staff, build and operate works, and raise funds through property rating within its area of jurisdiction. They are very similar organisations to what I had originally envisaged. So far, only three such Trusts have been established, and the NSW Government appears to be most reluctant to set up any more. It might be noted that two of them were set up under other legislation prior to the passage of the Catchment Management Act. These Trusts are so far the only NSW Catchment Management organisations to have achieved any useful results.

A feature of the NSW approach is the involvement of large numbers of community representatives on Catchment Management Committees; indeed, they are required to be in the majority. Whilst it is important for the valley community to have a significant input to the catchment management process, and to have a strong sense of ownership of management problem solutions, it is not necessary for them to make the majority decisions about management strategies. I believe this is putting the cart before the horse. Rather than doing all the decision-making, members of the valley community should be hard at work, particularly on their own properties, in the *implementation* of the management strategies. When I have talked about community involvement I have not meant just involvement in decision-making, but involvement *on the ground* in the management process. This point seems to have been entirely misunderstood in New South Wales.

In my own view, an ideal State system for the implementation of Integrated Catchment Management policy should have the following ingredients:

- There should be a small number of valley-based management authorities, each responsible for a major river basin;
- each of these authorities should be organised along the lines of a NSW Catchment Management Trust, with powers to employ staff, to undertake works, to engage consultants and contractors, and to raise operating funds through the rating of landholders/property owners within their area of responsibility;
- these authorities should each be managed by a Board with reasonably small membership, but including representation from all the local government bodies within its area of responsibility;
- each of these authorities should be advised by a Community Advisory Committee having membership representative of the catchment community, including property holders, commercial interests and conservation interests;
- each of these authorities should be charged with the responsibility for developing a Catchment Management Plan, and legislation should be enacted to make such Plans legally enforceable documents;
- where appropriate, there could be provision for sub-catchment advisory/coordinating committees, comprised largely of community representatives and responsible to the valley management authority for planning and coordinating the solution of specific local and sub-catchment management problems requiring substantial landholder involvement;
- State Governments should be prepared to provide substantial funding support to the Catchment Management authorities for specific management proposals and for ensuring that Government agencies cooperate fully in the Catchment Management process;
- the Federal Government should also be prepared to provide substantial funding support to the Catchment Management authorities on a competitive basis.

Whether this desirable state of affairs is ever likely to come about must be a matter for considerable conjecture. The reasons for the NSW Government's apparent neglect of the Trust concept, its apparent encouragement for a proliferation of small Catchment Management Committees and its rejection of the recommendations of the 1996 Review consultants, which strongly recommended a considerable expansion of and major emphasis on Catchment Management Trusts, were largely political. When the Catchment Management Act was being drafted, the NSW Farmers' Association was bitterly and ideologically opposed to the setting up of Trusts with rating powers and

remains of that view. That Association was also responsible for the requirement that Catchment Management Committees have a majority of landholders amongst their membership. The Association can be expected to continue to oppose the concept of a management authority with rating powers.

Experience has clearly demonstrated, nevertheless, that it has only been the Trusts, which have such powers, that have been able to make any significant contributions to improved catchment management in New South Wales. I would reiterate my view that the Catchment Management Committees are toothless tigers which operate as little more than talkfests.

There is a real danger in allowing the catchment management process to be dictated by catchment landholders, because they are the very people who have been responsible, wittingly or unwittingly, for much of the existing catchment damage. There is a general view amongst Australian landholders that their land is their own and they have a right to use and exploit whatever resources it contains, including water and vegetation. Whilst there is an increasing awareness of the responsibilities of landholders to assist in arresting catchment damage, this seems to occur largely through their involvement in site-specific Landcare projects rather than through the improved overall conservation-based management of their own properties. In New South Wales these attitudes are very evident in farmer reactions to land use controls, floodplain management controls, vegetation clearing legislation, restrictions on irrigation water use, and the new farm dams policy.

As one who has lived in rural NSW for many years, has many landholder friends and acquaintances, and is essentially of the same political persuasion as they are, I have much sympathy for their point of view. As one who is deeply concerned for the improved management of Australia's land and water resources, and has spent most of his professional career researching, teaching and consulting within this broad field, I strongly believe that the Integrated Catchment Management approach will be a total failure nation-wide unless there is a substantial change in current Government and landholder approaches to the issue.

Emeritus Professor John R. Burton
AO, BE, HonDResMgt, FIEAust, FEIA, CPEng.

Formerly Foundation Professor of Natural Resources,
The University of New England.