

# SUBMISSION TO HOUSE OF REPRESENTATIVES STANDING COMMITTEE

## on CATCHMENT MANAGEMENT

by G.O. JONES, P.S.M., B.AgrSc.

### DEVELOPMENT OF CATCHMENT MANAGEMENT IN AUSTRALIA.

Catchment Management as a tool for managing the environment was promulgated initially by the late E.M. Jackson through his lifetime and culminated in the formation of the Murray/Darling Basin Commission only relatively recently.

The original template was taken from the Muskegon River Valley - a tributary of the Missouri and described in a book written and collated by Mr. Jackson; "Replenish the Earth".

The catchment is the most basic unit for land management, especially in a country characterised by periods of too much, or too little, rainfall. Natural resource management makes much more sense on a catchment by catchment basis than it does by political boundaries along State and local government lines, many of which were just lines drawn on a map for convenience at the time.

The Murray Darling Basin was not necessarily the first to adopt Catchment Management and the idea has spread far and wide since, not necessarily on such a large scale and the scope of the policies vary.

The scope of the Murray/Darling Basin Commission is probably not as comprehensive as Mr. Jackson foresaw. The basin covers parts of four States and the Commonwealth and individual State politics still seem to be more important than a complete catchment policy - yet what has been achieved is still pretty remarkable.

### THE VALUE OF A CATCHMENT APPROACH TO THE MANAGEMENT OF THE ENVIRONMENT.

Linking people together whose land shares common drainage is just common sense.

A quick study of the Loddon River - one of the most degraded in South Eastern Australia - will help to illustrate.

The Loddon River rises in the Wombat Forest south of Daylesford and a significant proportion of the water from the upper catchment comes from this area. There is now widespread monitoring of the upper Loddon system but, for example, clear-felling practices in the forest area on a fragile soil system don't take into account the purity of the water supplied to the rest of the catchment.

Property owners in the top part of the catchment traditionally wouldn't have thought that what they did on their land would affect the well-being and lives of those 200 km away to the north.

Property owners in the plains area of the Loddon just assume that the waters come from somewhere to the south, it's probably the weather (or not) which causes their problems!!

Floods are a feature of the catchment. A special Sludge Abatement Committee was appointed to handle soil movement during and after goldmining. The Loddon is one of the saltiest streams supplying the Murray. It is only stored water released for irrigation and stock and domestic use which has prevented the river from complete devastation. The salt load is quite serious, sufficient at times to threaten horticultural industries especially in the Boort area, and affects water quality from Serpentine downstream. Flora and fauna is lost from in and along the river, the beds and sides are degraded and the present river is sad, compared with what it must have been originally.

Yet, despite efforts since 1970 of forward citizens in the plains area to get catchment co-operation, success has only been achieved in the past few years, and then it has been by legislative action not as a community move.

The plains farmers were too small a group and too isolated to have any affect on the rest of the Loddon Catchment. Without community education, the general Loddon community, both urban and rural were ignorant of the rest of the catchment. Those who relied on irrigation and were affected by floods, salinity and poor water quality, had a better grasp of the subject.

There was a general feeling that the problems belong to "other people" so immediate action, especially from a small group of people without a catchment-wide organization was difficult.

The value of the Catchment approach is that all those connected by the same stream networks can pull together so that problems that earlier seemed insurmountable can be alleviated. Levies can be collected for common causes. Finance can be placed where it does the most good, e.g. revegetation in recharge zones, flood alleviation plantings to slow water run off and stop gullyng, especially in steeper parts of the catchment. We now spend vital money on fighting floods on the flood plain instead, making the river more like a canal at every flood.

When environmental management is left completely to local government, areas too fragmented to be considered as a complete entity, so-called catchment minded administrators will not let finance go to other areas which should well have priority. We have seen this happen in the Loddon Valley - it's only human nature.

Local governments now have vision statements but they don't seem to be as effective or convincing when the boundaries are artificial. The catchment approach enables a vision of the environment in the future which will benefit both the people and industry.

Summarizing, environmental management is best done on a catchment basis because single people or district interests are too small and lack the valley vision, especially as the environmental problems affecting them may emanate in a totally different area.

### BEST PRACTICE METHODS OF PREVENTING, HALTING AND REVERSING ENVIRONMENTAL DEGRADATION IN CATCHMENTS, AND ACHIEVING ENVIRONMENTAL SUSTAINABILITY.

In the forest. Abandoning clear felling for wood chip production. The meagre income we get from export of wood chips does not compensate for the damage done, loss of income in value adding, the future loss of jobs as resources

decline, and the disruption of stream flow even though once it has settled down, a new forest releases less water for some decades. The services our forests provide in clean water, flora and fauna, and tourism provide real economic benefits which have never been properly costed.

On farm land. Conservation farming. Traditional farming throughout southern Australia never seems to have had an aim of full resource usage, especially with respect to the use of water, either irrigation or rainfall, or the combination of both. Excess water which should have been used for crop production or for aesthetic uses has been allowed to filter past the rootzone of existing plants to build up groundwater levels and eventually the water table. This has been dubbed "leaky agriculture".

The problem has been made worse by excess clearing (e.g. the original Wombat forest was many times the size it is now). Clearing went ahead without regard to the productivity of soils underneath. The original grasslands which made maximum use of incident rainfall were deep rooted also and remarkably productive.

Present agriculture is relying on shallow rooted pastures which are using a minimum of soil volume as their water source and thus are not making full use of incident rainfall. Shallow soils have virtually been abandoned except for grazing, and have become high intake areas.

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Remnant vegetation remains only along roadsides and some isolated paddock areas and many roadsides are being excessively ploughed for firebreaks.

Low commodity prices for food and fibre and high costs forced by the rest of community, coupled with low productivity from incomplete resource use, is forcing farmers into a cycle of less than ideal land and water use. Integrated catchment management may allow innovations that have the potential to break this cycle of loss.

The modern farmer has to use conservation methods.

- \* No fallowing for crops, except for special purposes (happening now).
- \* Planting of perennial species such as lucerne.
- \* Replanting of indigenous grasslands, especially on poor or shallower soils.
- \* Replanting of shallow, high intake soils with trees, shrubs and lower growing species as set out by whole farm planning.
- \* Preservation of indigenous vegetation areas including a cessation of clearing except under exceptional circumstances.
- \* Use of woody shrubs for grazing and systems such as alley farming (using treebelts) where necessary.
- \* A whole new assessment of stock control, e.g. cell grazing, rotational, and so on.

Along streamlines. A new attitude to the sanctity of streamlines with fencing and revegetation say from 10-50 metres along streams to provide removal of groundwater seepage, slowing of overland flows, a general usage of more water where it falls.

This will provide a more attractive countryside so that we can boost tourism (I'm still thinking of the Loddon Valley as a template - but it's universal).

The urban responsibilities. These include removal of sewage inflows either by surface flows or groundwater and maybe some off-street drainage and the water applied to land. Better drainage schemes (not putting water into sandlayers under the town).

A build-up of catchment pride (education) so that revegetation can be assisted and clearers and fire-break vandals can't get away with their devastations.

The farmer - many are technically ignorant. There is a need to bring the technical knowledge of soil, nutrients, plant water use, species, environmental aspects up to where farmers can administer their resources more efficiently and sustainably. The level of this knowledge is quite appalling in that many farmers are unable to understand a soil analysis report. (Some soil reports do have mumbo jumbo in them too!). I have done something about this by producing an eight unit course for Melbourne University (Longerenong) but it may not be quite as applicable to a farmer at West Wyalong as it is for one at Kerang!

Better community knowledge and awareness means that everyone has a vision - not just a few report writing greenies.

## THE ROLE OF DIFFERENT LEVELS OF GOVERNMENT, THE PRIVATE SECTOR AND THE COMMUNITY IN THE MANAGEMENT OF CATCHMENT AREAS.

Commonwealth Government should have an active role in large catchments which cross State boundaries, e.g. M.D.B. This is in funding for R & D and perhaps in funding for staffing - after all the M.D.B. will be expected to show the way for smaller catchments Australia wide and M.D.B. wide. This includes proper funding for scientific bodies in environmental areas e.g. C.S.I.R.O. and universities. The Australian Government should be prepared to provide "starter" money for innovative projects and staff to assist the community on R & D (where Landcare fails).

Grants to match landowner inputs for major projects should be offered, especially in the education and non "on ground" areas of action.

State Government should provide finance for administrative staff and facilities. Grants to match community inputs should be provided (as Landcare).

Local Government has little finance available to do anything unless they levy ratepayers. They may take a leading role in on-ground works.

Landowners and occupiers should be prepared to finance a deal of the action. Past damage is the result of past community action and this present community should not be expected to finance all the repairs possible. The rest of the community are demanding cheap food and fibre so the farmers and citizens should not be paying all the cost of all on-ground works.

## PLANNING, RESOURCING, IMPLEMENTATION, CO-ORDINATION AND CO-OPERATION IN CATCHMENT MANAGEMENT.

So far, the Victorian Government's actions in setting up C.M.A.s is a positive step. It apparently has not pulled its weight in providing finance for administration.

There has been very poor community contact. The catchment approach and levies have been foisted on the community rather than educating the community first so that they know what to expect and are prepared to pay for change.

The Victorian legislation was tied to the Water Act which sounds relevant but catchment management is environmental management and the quality of water in the river system is but one of the ways you expect to measure the positivity of your future management.

Reacting ratepayers have been told the levy is to improve the water but there are a thousand positives that better catchment management can provide environmentally, socially, culturally and financially.

I do not intend to go further into this section other than to say that there is a danger under the Victorian system that the C.M.A.s may become too powerful in the whole scheme of things. In other words, they may be expected or expect to handle and filter funding and decision making for a much wider area than their scope includes. I can't give you an example but it is a community fear.

The other aspect is one of community education. Following Jackson's push for catchment management, various state conservation bodies started some education in schools but little was done to talk to the adult community - not always easy, e.g. how do you remind a new Queensland cotton grower that the 2000ML water licence he's just taken up since the cap, has been part of the M.D. flow for ever.

How do you remind the N.S.W. Government that water licences on the Darling River should be patrolled so that large users don't take water illegally at low flows.

The last two examples are for high flow usage and the infrastructure is provided for those years. The irrigator then wishes to have water every year. This is to enhance company's investment rather than to honour the water supply agreement or consider the health of the river or those (flora, fauna as well as humans) who live downstream.

How do you impress on Murray irrigators that the water cap is fair dinkum?

How do we tell a Tatura farmer that land which he uses for pasture is not prepared properly for irrigation, never has been and shouldn't be watered again until it is. We've now known this for 50 years and intensely for 30 or more, yet our tolerance seems to know no bounds.

And while I'm at it, we're told of gloom and doom from drylands of the M.D.B. and there are reports out, yet I see little forthright endeavours from the Australian Government and when there is funding it is tied to selling off Telstra and we are told that funds are available if.....

Right now the Australian Government appears to be lacking in understanding of a basin-wide vision of the Murray Darling System. Their inputs appear to be piecemeal. It doesn't appear important enough to be a stand-alone project and scientific bodies doing vital work in the basin seem to be operating on tighter and tighter funding inputs. Success there will surely provide a lead to action in all the rest of the Australian catchments.

If Australia's future is so precious (you may disagree) why is funding for conservation (starting with the M.D.B.) subject to the sale of a public utility. Having healthy catchments affects the very core of the rural economy. This type of conservation funding should be provided without question or strings attached, provided it has been processed through the networks put in place by the Government (including catchment authorities). I believe that the

Commonwealth Government's philosophy in tying the provision to the sale of Telstra to be nothing short of blackmail. I'm appalled.

MECHANISMS FOR MONITORING, EVALUATING AND REPORTING ON CATCHMENT MANAGEMENT PROGRAMS, INCLUDING THE USE OF THESE REPORTS FOR STATE OF THE ENVIRONMENT REPORTING, AND OPPORTUNITIES FOR REVIEW AND IMPROVEMENT.

Once more I can only comment generally.

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First of all, I like Denis Saunders' (C.S.I.R.O. Canberra) 10 point plan for sustainability - it bears repeating ....."

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- \* Develop a vision of the landscapes of the future and how they should function ecologically, socially and economically.
- \* Define the environmental, social and economic problems that need to be addressed.
- \* Establish what was present in the landscape before development and what it is there now.
- \* Establish what skeleton is available to build the future landscape upon.
- \* Retain, protect and manage all remnant vegetation to prevent further loss.
- \* Design a reconstruction plan based on an ecological zoning.
- \* Establish goals and timelines for developing the landscape of the future.
- \* Act on the plan.
- \* Monitor progress, record results and adapt management.
- \* Lead by example and communicate widely."

Right now, if a group is funded (Landcare, Shire, salinity group, D.N.R.E., etc.) they are expected to report on how the total moneys were spent and what was done and who participated. Depending on who you are these reports can be spot-on or exaggerated but at least they can be checked on and it would be the responsibility of the C.M.A. to collate surely. It is questionable if the Victorian C.M.A.s have the staff to do this or perhaps D.N.R.E. should be doing it as part of their responsibilities.

(It is the Victorian Government which appears to have been doing the most exaggerating - often by including present, past and future funding amounts to appear as the year's spending, e.g. \$10 million in the press release comes down to \$2 million this year. D.N.R.E. in Victoria is funded at about 45% of funding for comparable departments in other States.)

Whether this happens in official reports I cannot say.

The Victorian C.M.A.s are too young to have reports back to the rate-payers except the bare bones of what has gone on.

Who reads the reports?

Best practise and benchmarking is necessary so that those funding may see that their funds are spent positively and to guide further funding.

They are important so that precis and highlights can be fed to the press and public and the catchment ratepayers.

Too little reporting back has occurred in the past, mainly because nature takes its time and the lag between cause and effect may be some years - the salinity problem is a classic example.

Certainly far too little reporting back comes out of the M.D.B. Commission, or is all the press gloom and doom their report? There's very little positivity coming out of that body. Perhaps we are in a period of gloom and doom in the valley, but there are many positive aspects of the M.D.B.