

# SOIL BOARDS AS A VEHICLE FOR LANDCARE

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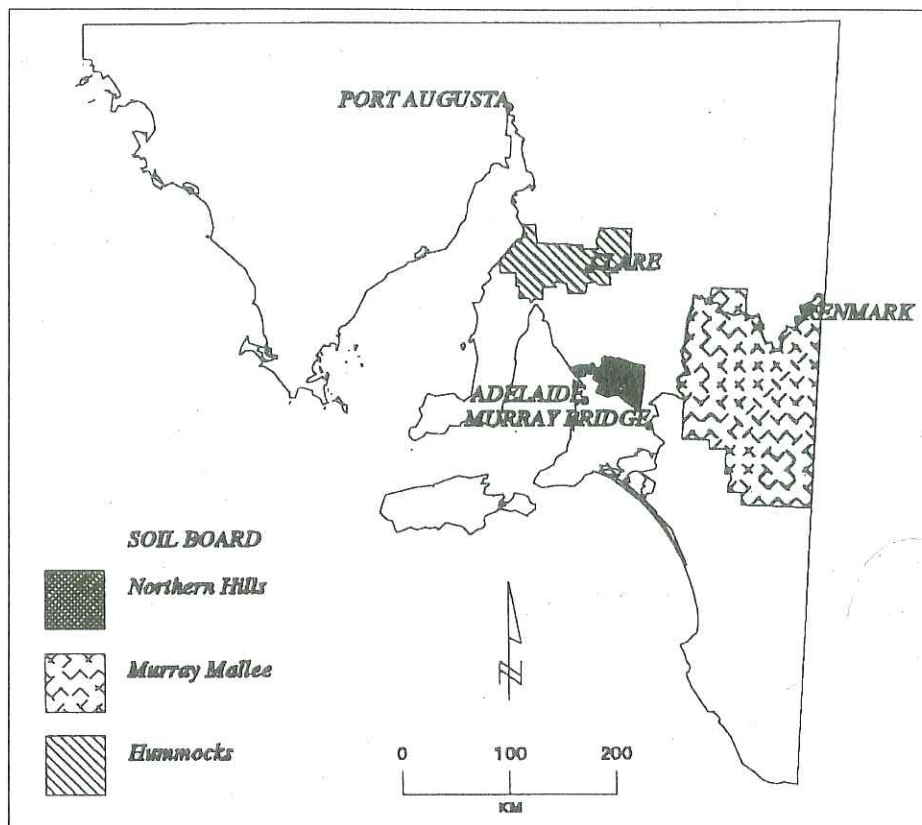
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• Map showing location of Northern Hills, Murray Mallee and Hummocks Soil Boards.

## **Abstract**

*District Soil Conservation Boards now cover the whole of South Australia. Board members are landholders with an interest and demonstrated skills in land management and who are able to work alongside community groups to promote the best possible land management practices at a regional level.*

*Key Words: Soil conservation boards, landcare, land management.*

**T**he culture of landcare is well established in South Australia. There are in excess of 250 landcare groups well distributed across the state, an unknown number of catchment groups and several community of interest groups along the Murray. In this regard SA is much like the rest of the country.

Soil Conservation Boards represent yet another layer of community groups. One might wonder why anyone would bother. This question becomes even more pressing when it is realised that the boards are set up under an act of parliament and the members, sometimes living a hundred or so kilometres apart and with little background in common, are appointed by the Minister of Primary Industries. Set this against the stunningly successful landcare formula wherein groups emerge spontaneously in response to local issues and are generally driven by neighbours who share a strong and

immediate community of interest. So why have Soil Boards? And where are they?

The Soil Conservation and Landcare Act (1989) requires that Boards "... promote the principle that land must be used within its capability and forward planning on that basis must become standard land management practice ..."

All boards consist of seven volunteer members, each of whom is a land manager with knowledge and experience in soil conservation practices. They come from the 'six corners' of the district and represent the major land uses. The seventh member represents local government. As well, the boards receive technical support from the SA Department of Primary Industries.

The District Plan is a major focus for all soil boards. It is really a detailed set of guidelines for appropriate land management in the district.



• *Erosion damage in the northern foothills as a result of heavy rains in 1992.*

The notion of a District Plan has an ominous ring to it. It sounds like one of those things which might be seized on by a few as the revealed truth, but avoided by most out of either fear or boredom. One might imagine it sitting quietly forever on a shelf, satisfying only a small group of government bureaucrats who can point to it as evidence that something impressive has been done.

Each board has five years to produce its District Plan and a work program to accompany it. Most boards find the process of preparing the plan both challenging and rewarding, as it causes them to focus on the real issues and to communicate with those for whom the issues are most relevant.

The preparation of the plan follows the widely acknowledged process of public consultation. Boards have tried hard to avoid the illusion of consultation whereby a committee identifies what it perceives to be the issues and then invites comment. Instead, boards are encouraged to meet with landcare groups, agricultural bureaus, local government and industry groups and seek their help and experience in identifying the issues. They then work with them to prepare strategies for dealing with those issues.

For all noble ambitions, the soil board model must ultimately be judged by its practical achievements. In this article we profile three quite different boards, looking at just one activity of each as examples of an outcome which might never have been reached without the board's presence.

#### THE MURRAY MALLEE BOARD

**F**or almost 50 years the Murray Mallee and District Soil Conservation Board has been at the cutting edge of soil conservation and land management in the Murray Mallee.

The Board was proclaimed in 1947 and given the onerous task of stabilising and rehabilitating the badly drifting mallee

soils.

The degradation had been caused by a complex range of climatic, economic and social factors as well as a general lack of understanding of the mechanisms involved and a lack of suitable technology to deal with them. In many instances the board members found that they had to develop the solutions to the problems that confronted them.

At the recent celebration marking the 150th board meeting, past members reflected on how a cynical community would often highlight the board's disappointments but ignore its achievements. New strategies to stabilise drifting or degraded soils were often trialled on board members' properties under the critical eye of 'local authorities'.

For over two decades the board and the (then) Department of Agriculture collaborated to develop strategies and techniques to level and stabilise badly eroded sandhills. Restoration work was hampered by a lack of effective rabbit eradication methods and poor soil fertility due to the limited supply of fertiliser.

Gradually, with the board's support and encouragement, landholders began to stabilise the less difficult areas. In the early 1980s the board sponsored a major land rehabilitation project involving earthworks to level drift banks and erosion gullies. In many instances trees had to be removed as they had been undermined and were contributing further to erosion by harbouring rabbits and weeds.

On 35 properties 898 ha were bulldozed and 2040 ha were stabilised by sowing to cereal rye fertilised with nitrogen. The State and Federal Governments jointly provided a \$103 000 subsidy which was more than matched by the landholder cash and in-kind contributions.

On most farms the impact of this program was significant. It showed that vermin could be eradicated using an

integrated approach which included follow-up. It also showed that land could be stabilised with perennial pasture species such as primrose, veldt grass and lucerne. Inspired by their successes, many farmers relocated fences and watering points to protect their achievements and minimise the risk of future degradation. In the mid 1980s the program was expanded to the whole of the board area and works were carried out on a further 56 properties.

There were many positive outcomes to this program:

- significant reductions in rabbit populations and hard core erosion areas;
- a reminder of the high cost of land degradation and a reinforcement of the soil conservation ethic;
- a boost to community morale and confidence;
- recognition by the community and by the board itself of the board's role and capabilities.

Changes to the Soil Conservation and Landcare Act in 1989 allowed the board to further its commitment to better land management practices. The new Act required the board to assess land capability and to develop land management guidelines. It also gave the board powers to encourage compliance by reluctant land managers.

The Murray Mallee Board was one of the first in SA to develop a District Plan in consultation with its community. This plan documented the distribution and capability of the district's natural resources and recommended practices for their management and protection. It also outlined the risks associated with continued use of some conventional practices and technologies, particularly in regard to stock, drought and tillage.

The board is promoting education through Property Management Planning workshops. We believe that this will be the key to the board meeting its long-term objective of general uptake of recommended practices to halt soil fertility decline and minimise the risk of erosion.

We now have a catchment focus to many of our strategies and activities. This has developed through the strong links formed with neighbouring soil conservation boards through the CARE (Community Action for the Rural Environment) program which has been funded by the Murray-Darling Basin Commission.

### THE HUMMOCKS BOARD

**T**he Hummocks Soil Conservation Board was officially formed in 1983. Covering 12 000 square kilometres in the mid-north of the state it derives its name from the range of hills running more or less along its western boundary.

Foundation members of the newly formed board were already involved in a variety of projects funded under the National Soil Conservation Program. Magpie Creek, Gum Creek, Hutt River Flood Mitigation, Hill River and Mintaro were just some of the schemes which involved farmers, the Department of Agriculture, Greening



• John Berger showing off some of the shrubs planted to assist land rehabilitation in the Murray Mallee district.

Australia and the local community. Contour banks, grassed waterways, flood control dams and tree planting were some of the strategies used in dealing with severe water erosion and associated production losses.

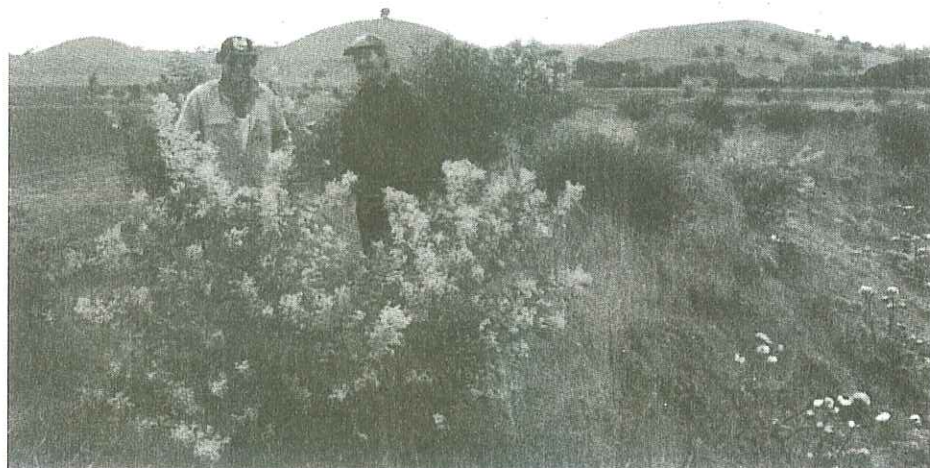
The board had many more projects planned for the late '80s, but funding became particularly difficult to access during the period leading up to the advent of Landcare.

In 1988 the board prepared a submission for a major project entitled Reclamation - Prevention of Land Degradation. The scheme would involve a wide range of trials and demonstrations using revegetation to reclaim degraded land. The submission duly went to Canberra where it was put on hold until August 1989 when the then Prime Minister, Bob Hawke, announced the birth of Landcare by symbolically planting a tree on the banks of the River Darling at Wentworth.

We were forced to wait patiently for several more months before we finally heard that the submission had to be rewritten to conform to Landcare guidelines and that a ceiling of \$20 000 per year would apply. This was a pretty



• Kevin Jaeschke (centre) and a colleague discuss revegetation techniques with Don Burke in the Hummocks Soil Conservation District.



• A gully in the Hummocks Soil Conservation District stabilised by fencing and planting. The "Hummocks" are in the background.

tense time, as we had already selected sites, Trees for Life (TFL) members were already growing 50 000 seedlings and local government was waiting for the word to start ripping planting lines.

Finally, in February 1990 we heard that the board's project would be funded for three years.

The first tree was planted by the Director-General of Agriculture, Dr John Radcliffe, in April 1990 at a 20 ha degraded site 2 km east of Snowtown. And so began a hectic six months for the Soil Board members.

The success of such a big project demanded huge community support. The board received it from local government, local schools, Boy Scouts, progress associations, Community Aid Abroad, Australian Trust for Conservation Volunteers. But most important was the input of the local landowners.

Five semi-trailer loads of trees and shrubs, all grown by TFL volunteers, were backloaded from Adelaide by a local carrier. The seedlings were planted mechanically and by hand, stage one of the job being completed by September. In

year two, 40 000 trees were planted and in year three, 30 000 completed the project.

So, what were the results?

Firstly, the raising of farmers' awareness of the issues which the board was attempting to address. In particular, the role of revegetation in reducing wind and water erosion, in arresting dryland salinity and in rehabilitating scalded sites. On top of this was a general feeling of pride in what had been achieved.

A final assessment has now been made of the 10 sites chosen for this project. A full report will be available shortly, but in summary we can claim 80 - 90 per cent survival rate in annual rainfall regions ranging from 280 - 600 mm. Growth rates have been excellent, with local species in particular demonstrating their superiority.

In saline areas, local and non-local trees and ground covers were planted and grass has returned to these sites

since stock was excluded. These sites can now be lightly grazed in autumn. Wind erosion has been controlled on sandhills and water erosion has been controlled along creek banks and gullies.

Overall this Landcare program has been very successful and a credit to the board members who have put in so much time and to the community who have given such active support. None of us doubts that the hard work has been worth it, and the board will continue to enthusiastically address broadacre issues, particularly those with a catchment focus.

#### THE NORTHERN HILLS BOARD

The Northern Hills Soil Conservation Board is responsible for an area of about 4000 square kilometres principally in the Mt Lofty Ranges. As well as being one of the smallest boards in the state, it is also one of the newest, its creation having been delayed by the complexity of its make-up.

The area covers an enormous diversity of geographical conditions and agricultural practices. Annual rainfall varies from 350 mm on the plains to the east and west to 900 mm in the steep hilly country. Agriculture includes many forms of annual and perennial horticulture, forestry, grazing, dryland and irrigated cropping, dairying, viticulture, horse keeping and an increasing volume of hobby farming.

The structure of our District Plan is framed on a catchment approach. We have delineated the twelve major catchments in the district and we will use this to foster a catchment mentality amongst all landholders. This is particularly important as all the catchments ultimately feed runoff water to metropolitan Adelaide.

In 1992 the Adelaide Hills experienced record rainfall events and widespread flooding. No area suffered more than the eastern foothills and the adjacent plains. An area with an average annual rainfall of 350 mm experienced 400 mm in two days. But this was only part of it, as massive volumes of water



• Bruce Munday (centre) inspecting a saline area with Rob Fitzpatrick (CSIRO Soils) at right and Leon Herrmann (Tungkillo Landcare Group) at left.



• *A mallee sandhill before and after stabilisation.*

poured out of the higher reaches of the catchment.

This has been a very conservative and traditional farming district. A good paddock was a clean paddock and the best way to achieve this was with a long summer fallow with a thorough working up whenever a shower brought on the odd weed. Contour banks made the paddock look untidy and the only thing to do with stubble was to burn it.

The floods to this area might have been apocalyptic. Whilst no conceivable landcare measures could have eliminated the damage, the event highlighted the extreme vulnerability of this form of farming.

It was clearly out of the question for the board to approach the plains farmers, most of whom had just lost the whole of what had promised to be one of their best crops on record (not to mention large chunks of their paddocks), and suggest how they might lift their game.

However a board member knew a couple of the landholders who were well regarded in the district and whom he knew to be sympathetic to landcare ideals. He sounded them out on the possibility of forming a landcare group through which the farmers might take some initiative to deal with their problems.

These two farmers invited their peers to a meeting to find out what landcare was all about and what it might offer them. The board stayed in the background but provided a speaker from the Tungkillio Landcare Group at the top of the catchment to outline what they had got out of their experience. The Palmer and Districts landcare group was formed that night.

Six months later the board approached both the Palmer and Tungkillio landcare groups over the possibility of taking on a Corridors of Green program. This seemed to offer an opportunity to bring a catchment focus to land management. Landholders in the nether reaches of the catchment between the two landcare groups were then sounded out. On the strength of the support a successful proposal was put to Greening Australia.

This revegetation program, like so many others, has been a catalyst for tackling more general land management issues. A third landcare group in the middle of the catchment was born about twelve months later, not because the need suddenly arose, but because the opportunity did.

The next step for the board was to integrate these three landcare groups so that they could identify their shared common interests and work together on a land management plan for the whole catchment. Throughout the whole process each landcare group has retained its autonomy, set its own priorities and progressed at its own pace.

The progress which has been made, and the good prospect that it will endure, owe a lot to the board. In particular to the fact that the board is made up of farmers who have some credibility with their peers, who can take a regional view of the issues, and who aim to promote other groups rather than promote themselves.

## CONCLUSION

**T**he diverse membership of soil conservation boards encourages a regional approach to land management. However, the implementation of regional (district) plans requires the active participation of local community groups who confront the issues daily. Soil boards have become increasingly active in communicating with landcare groups, listening to their concerns and assisting in focusing their efforts towards the regional issues. At the same time, the boards are in an ideal position to identify gaps in the landcare network and facilitate the emergence of new groups to fill a vacuum.

Of course responsibility for good land management does not rest solely with landcare groups. Soil boards have worked hard to share their agenda with local government and with industry groups. This has been a successful venture in its own right, and has the added benefit of bringing these two sectors much closer to landcare groups. □