

Murrumbidgee Landcare Association

Max Chamberlain -Chairman MLA

'Narua' Downside via Wagga Wagga

Our association was formed after two regional forums with representatives of Landcare groups from all over the catchment of the Murrumbidgee river. These forums were called after Landcare members from the area attended conferences in Tasmania and Queensland. They felt there was a desperate need for a grassroots organisation at a regional level, to facilitate the transfer of information and ideas between Landcare groups (networking). It was also felt that Landcare needed a voice to speak to the media and the government both on natural resource management issues as they arose and also on matters of policy.

To this end, our association has nine committee members - three from each of the lower, middle and upper Murrumbidgee areas. The chairman is responsible for fielding questions on Landcare in the Murrumbidgee catchment, but will call on other committee members if they are more qualified to answer a particular query or if it is specific to their area.

We recognise the diversity of agricultural activity in the region: from both intensive enterprises to broad acre cropping and grazing; and from irrigation to dryland. We also recognise the different ways these enterprises are being run: from small family units to large corporate farms. As in other catchments, there is a great diversity of urban activity as it relates to Landcare: from fostering community awareness on natural resource management issues to the educating of children. Our aim is to foster the links between all sections of the community and encourage the use of government incentives such as the proposed Green Corps. While there is a great variation of groups in our community we have one thing in common - a problem of degradation of our natural resources.

To enable interactive communication between our Landcare groups, a database has been established with the majority of existing groups already sharing their information. Helen Reynolds is our information officer and can be contacted on 069 23 0528 during working hours. We welcome any queries or suggestions! While networking and communication are our main aims, one of our immediate objectives was to facilitate an umbrella insurance cover for the Landcare groups in our area. After lengthy discussions, however, it seems more appropriate, and timely, that we lobby the NSW Government to cover the liability of the groups. Having talked to many groups, the most common complaint seems to be that they have to spend a lot of effort raising funds for insurance cover - remember many of these groups are quite small and they are, in effect, raising money for the privilege of carrying out Landcare work.

It is my personal opinion that inappropriate funding strategies, rather than funding shortfalls, are causing problems for Landcare groups. The large proportion of funds being allocated to LWMPs and action plans is, I believe, starving the new and emerging groups of seed money and causing disillusionment. There is no doubt in my mind after visiting many small and struggling groups that the continual struggle with fund raising for insurance is causing disillusionment - after all, what they want to do is fix land degradation in their area, not fund raise! Many of them have not even applied for funding - they are happy to fix their own problems in their own time with their own resources. Surely these groups need encouragement to be self sufficient! They can see the benefit of the land care ethos - cooperation!

I urge all Landcarers present at this conference to stress the need for the State government to take over the responsibility of insurance cover (as they have in some other States). The cost of this will not take a great deal from the available funds and will enable many small groups to continue and get on with the job.

Landcare is an organisation which is unique in the world - hopefully it can continue to be so! I believe we are at a crucial point in time where Landcare is concerned, as there is now the potential for significant funding and this must be carefully targeted! I believe I am very fortunate in being involved in Landcare at two levels - as chairman of the Murrumbidgee Landcare Association I represent the views of the Landcare person who is 'out there' actually carrying out the work -whether it is on the farm or in the town. This is where my heart is, as this is where the real change is happening. I am also a community member of the Murrumbidgee Catchment Management Committee - a task which I cheerfully perform as I meet a variety of committed people in the field of natural resource management and see a wide variety of problems and solutions.

Total Catchment Management is a very necessary level of Landcare - your average Landcare person on the street (or on the farm) is realistically only interested in their 'home turf' because in most cases that is all they have the time and resources to be involved with. TCM committees have the task of coordinating these works if it involves funding. One of their tasks is prioritising this funding. They look at the 'big picture' and try to prioritise natural resource management. The strength of the TCM committees is that they have a wide range of expertise because they have representatives of all the relevant agencies and have a majority of community representatives. The weakness of the Catchment Management Committee unfortunately is that the funding bodies don't allow them enough discretionary funding to respond to issues as they arise, and there is always a delay, which frequently causes problems.

Landcare is such a vibrant, exciting movement which has enthused the community in general and it deserves to flourish. The only way this will happen is if the individual groups are given the incentive to continue. Landscape change is already happening in areas where there is an active Landcare group. Let us all work together - Landcarers, catchment managers, politicians and their advisors to encourage the sustainable management of our natural resources!

The Tasmanian Landcare Association Inc.: An Independent Voice for Community Groups

Don Defenderfer

Executive Officer

Australia's First Independent Association:

Australia's first independent association of Landcare groups continues to go from strength to strength as it has become Tasmania's peak body for community Landcare, Coastcare and Waterwatch groups. The Association is now recognised by the Tasmanian State government, community groups and the media as the voice for community groups in Tasmania. The media especially enjoy being able to talk with us as we are able to express ideas and concerns about burning issues that government employees might not be able to mention.

We are working well with local and State government agencies here in Tasmania; they are right behind the development of independent Landcare association even though at times we can be outspoken about government policy and directions on Landcare. For instance we were very active during the Federal election campaign and then in the lead up to the Federal Budget. We were able to voice the concerns of groups through the media about proposed budget cuts and the demoralising affect that this would have on Landcare groups. We had the groups write to Federal and State Ministers, get on talk back radio and use the State's newspapers. As a result of our lobbying efforts, Landcare funding to Tasmania was cut back less than first muted and, overall, Tasmania was cut back less than other States. But we are trying not to be just reactive and just complain, we are trying to work positively with State agencies so that groups can more effectively achieve their on-ground projects. We emphasise that Landcare is a partnership between the community and government.

We have been working closely with the State to look at how Landcare groups in Tasmania can appropriately link up and operate more strategically on a regional basis. There is a need to identify priority issues and focus projects on these issues. However the Landcare Association has strongly asserted the need for Landcare to continue to also support small group projects that are doing local actions, as groups need a sense of ownership and local achievement in projects. If we try to push too fast for huge regional projects without the support of groups, Landcare will lose the very volunteer support that has made Landcare so successful.

History: What is the TLCA and Why Does it Exist?

In 1994 a collection of Landcare groups in Tasmania got together to form an independent, statewide association of Landcare groups. The initial reason for forming an association was to assist groups with acquiring umbrella incorporation and insurance. However soon after forming, the vision of the Association expanded considerably as the enormous potential of a statewide representative body was seen. The Association has stressed from the beginning that it would be independent of any government agency or farmer organisation, but that it would work cooperatively and in partnership with these bodies.

The formation of the TLCA is seen as a maturing of community Landcare in Tasmania. Groups are taking more responsibility in working in partnership with government, to set Landcare policies and priorities which will help achieve Landcare's objectives. Ninety three groups have now joined the Landcare Association.

The Tasmanian Landcare Association Inc. is the first such independent Landcare body to form in Australia and thus is being looked at as a model for other States to emulate. The Association will endeavour to communicate its progress to the National Landcare Program and Australia's 2,500 community Landcare groups.

Both Government (ie. Department of Primary Industry and Fisheries) and non-governmental bodies (ie. Tasmanian Farmers and Graziers Association, Greening Australia) have been extremely supportive of the TLCA, while at the same time allowing it to be autonomous and at times critical of government policy. This kind of relationship is seen as healthy to the Landcare community/government partnership. Maintaining this partnership is seen as crucial to the long term success of Landcare. The Association's new Draft Strategic Plan outlines the TLCA's intended actions toward strengthening this partnership.

Vision:

The overall vision for the Tasmanian Landcare Association is for it to be a cohesive, independent voice for Tasmania's 183 Landcare groups (this includes Coastcare, Waterwatch, "Friends of" and other similar community groups which may be funded through or in conjunction with the National Landcare Program). The TLCA's mission is to work with Landcare groups, community organisations and government agencies to ensure that Tasmania can reverse land degradation and actively achieve ecologically sustainable use of our land and water resources. The Association aims to be a pro-active, non-governmental representative body that strategically helps further the success of Landcare groups by helping them overcome obstacles and successfully achieve their individual group projects. The Association is determined to remain grassroots oriented - driven by the needs, vision and involvement of its members and Tasmania's Landcare issues.

TLCA Roles:

At the Association's Inaugural General Meeting (September 1994) attending Landcare groups identified five major roles that they believed that the Association should play. These roles have guided the TLCA's actions since that time. These core roles (in priority order) include:

Strategic Role: To be involved in helping groups set the future direction of Landcare in Tasmania. To help groups set State policies and priorities in natural resource management;

Support Role: To provide a support infrastructure for Landcare groups, including administrative assistance, training programs, facilitation assistance, organising of workshops, field days and guest speakers;

Lobbying Role: To provide an independent voice to represent the needs and desires of Landcare groups. To represent Landcare groups on government committees so as to have input into government policy on land and water management;

Networking Role: To facilitate the exchange of strategies, information, skills and resources between groups. To improve links between Tasmania's 183 Landcare groups. To provide a link between community groups and government agencies;

Promotion Role: To promote the on-ground achievements of Landcare groups and individuals. To further spread community awareness of Landcare practices and Landcare ethics;

Planning Principles:

The fundamental principles in the development of the TLCA's Strategic plan include:

- The TLCA should be independent and community-driven;
- The Association should remain close to its grass roots and not become another level of administration, bureaucracy or hierarchy;
- The plan should be vision oriented, not simply focus on current issues;
- Landcare is a partnership between community groups and government;
- Landcare involves volunteer people;
- Landcare should empower landholders and land managers;
- Landcare is a collaborative, cooperative and participative process;
- Landcare is a long term process for achieving ecologically sustainable development;
- This plan will lead to action.

Priority Issues for the TLCA:

The implementation of the TLCA's new Draft Strategic Plan will require the involvement and commitment of all groups who are members of the Association. The process of addressing the priority issues in the plan will be as important as the actual outcomes. Participation, communication and creativity will be essential. TLCA meetings are open to all groups. Every opportunity has been given for groups to have input into the plan and the development of the TLCA- Annual reviews will ensure the continued support of Tasmanian Landcare groups.

The ten major issue areas the TLCA intends to address over the next two years are detailed below under the five strategic roles established for the TLCA. Focusing on priority issues and achievable goals will be essential to ensure that the TLCA does not over stretch its finite resources.

Strategic Role:

1. NLP funding process
2. Catchment management and regionalism

Support Role:

3. Group administration and management
4. Communication in Landcare network

Lobbying Role:

5. Establishing a community voice in Landcare
6. Administration costs to groups

Networking Role:

7. Communication among groups
8. Linking and information sharing among groups

Promotion Role:

9. Promotion of achievements of Landcare groups
10. Education and community awareness

Major Highlights of the TLCA's Past Year:

Major highlights of the TLCA's past year include such things as the production of the TLCA's Strategic Plan (based on the input of groups through nine day-long regional workshops), hosting the Minister for Primary Industries at a Landcare group project with no media or minders, production of a tool kit on incorporation and insurance for groups, high media profile, part of the team that created the Red Tree, making a submission to a Senate Committee in Canberra on the Natural Heritage Trust Bill, Submission to the National Landcare Advisory Committee achieving representation of Landcare groups on State Assessment panels and 15 other committees involved in natural resource management issues, and providing a daily link between Landcare groups and government agencies.

Issues that the Landcare Association is working on now include convening the next State Landcare Conference in Tasmania, lobbying to reduce the high cost of incorporation and insurance for groups, updating the State's Decade of Landcare Plan, lack of State funding to Landcare in Tasmania, need for clear understanding by groups and government about the shift towards regionalism in Landcare, need for more on-ground funding in Landcare, promotion of Landcare group and individual Landcarer achievements, facilitation training opportunities for groups, developing a tool kit as a guide to Landcare in Tasmania.

Implications for other Landcare Associations:

I believe that the establishment of independent Landcare Associations in other States or regions is a natural maturing of Landcare, it evens up the Landcare partnership model. However it is not an easy process as both the community and government will be on learning curves of how to work and negotiate with each other. The government can be very sensitive to community criticism and I suppose the reverse is also true. It is an exciting process to be involved in, however, establishing an umbrella community voice for groups is not an easy task. Some things that would need to be considered by anyone thinking about establishing an umbrella association include:

- The inevitable need for resources and the extra load on volunteers needs to be considered. The need for an association should be analysed - how and why it works in Tasmania may not be how it could work in other places.

- You will need to be clear of your vision- what are your goals? Why do you exist? What do you want to achieve?
- **Credibility:** having a community voice carries a responsibility to be credible, positive and constructive at all times, especially when working with the media and government agencies.
- **Lobbying:** learning to lobby is an art form. You need to be informed on issues and know the right people to talk to and when to use the media. You can lose credibility instantly if you appear uninformed or overly reactive, be proactive.
- **Partnership:** Landcare can't be all top down or bottom up, so stress that Landcare is a partnership when you work with government (all levels). Try to find some key contacts in government agencies that understand and support your goals. Work with them, not against them.
- Continually remind politicians, government and the wider community that the Landcare model is the only way we will be able to reverse land degradation and integrate nature conservation with agricultural sustainability. Remind them of the incredible volunteer work going on in Landcare.
- Make your goals transparent (no hidden agendas) and follow the vision of the groups that support your Association- be grassroots, group-driven.
- Celebrate your success and make sure you get out of the office and out of meetings and out of your car and onto the land for inspiration!

Conclusion: Landcare is Contagious

Landcare is a contagious thing. A farmer looks over his or her fence and sees what the neighbour is up to, say direct seeding for windbreaks, and if its working you can bet that next year they will give it a go too. Landcare inspires people to get involved and get something done. Landcare is a positive approach that is now acknowledging the good work that farmers and land managers are doing. Being involved in Landcare is now a way of life for many people.

Our job, as a representative association is to voice the creative ideas and concerns of Landcare groups and to make sure that all the enthusiasm demonstrated by Landcare groups is supported by government resources. We need to constantly remind politicians and agency heads and departments that complex land degradation issues cannot be solved without involving community members, and that volunteers should not be taken for granted. Landcare helps break down the barriers between government and community. We try to publicise, as much as possible, that community Landcare groups are the best deal anyone has ever thought of to combat land degradation issues.

The Value of Volunteers in Rehabilitating Sydney's Urban Bushland 1994/95 Survey Results

Lynn M. Rees and Martin G. Smith

NSW National Parks and Wildlife Service

The aim of the survey was to collect quantitative data to analyse the size and strength of the volunteer movement involved in bushland rehabilitation in the Sydney region. A questionnaire was sent to all local government councils and national park districts in the Sydney region. It is recognised by the authors that other organisations such as Greening Australia, Men of the Trees, Australian Trust for Conservation Volunteers, schools and TAFE's etc. also undertake valuable volunteer bushland rehabilitation projects, though no attempt was made to collect this data.

Cessnock, Singleton, Newcastle and Gosford councils also provided data, however it was not used for this survey. The data collected was presented in a spread sheet format and summarised as follows in this report. The authors gave assurances to contributing organisations that data specific to their programs was confidential and that only collective data would be published.

Councils:

The survey area covered all (42) local government areas in the greater Sydney region. Of the 83% of councils which have bushland, 77% have volunteer programs.

National Parks:

Sydney's national parks are administered within three districts. These are the North Metropolitan District, Sydney District and South Metropolitan District. Each district has a volunteer program. Sydney District has had a program for 2 years and the North and South districts have had programs for 1 year (due to external grant funding).

Volunteer Numbers:

The Sydney region has 4 787 volunteers working in 468 groups. 683 volunteers work alone.

Volunteer Hours:

Volunteers carried out a total of 93 732 labour hours in the 1994/95 period.

Economic Value:

Two values have been applied to these hours. \$22 per hour represents the average commercial bush regeneration rate and \$12.50 is the rate Landcare applies to volunteer contributions.

<u>Volunteer Hours and Rate</u>	<u>Value of Volunteer Contribution</u>
93 732 hrs x \$22.00	\$2 062 104
93 732 hrs x \$12.50	\$1 171 650

Return on Investment:

93% of organisations knew or could estimate the capital outlay to administer volunteer programs. Based on total values, the return on total investment at \$22 per hour = 143%. As 7% of organisations could not provide any administrative costs and the majority of other organisations could only estimate costs, this figure should not be considered as an informed estimate.

Number of Years Programs have Existed:

Average number of years volunteer programs have been operating was four. With the longest program in operation being 15 years and the shortest 1 year. 64% of programs commenced in the last four years.

Name of Program:

29% of councils call their program 'Bushcare'. The names of remaining programs vary with the words 'bush regeneration' and 'bush rehabilitation' commonly used.

Funding for Volunteer Programs:

77% of organisations have ongoing funding. 12% rely on grants and 9% were unsure of future funding.

51% of total expenditure was attributed to salaries while 49% of total expenditure was attributed to general operations. With few exceptions the organisations with the largest volunteer work force received the greatest funding.

Staffing Levels:

Thirty two percent of organisations have full-time coordinators while 64.5% have part-time. Sixteen percent have full-time technical officers while 38.7% have part-time technical officers/trainers. The majority of organisations with part time coordinators consisted of one full-time position being responsible for general bushland management with a proportion of their time attributed to volunteer management.

Contract Trainers:

Percentage of organisations which use contract trainers = 32%

Total hectares of bushland managed by all participating councils and national parks = 52 667 ha. This represents an average of one volunteer per 11 hectares.

Total bushland under council care and control was 34 668 hectares, while 17 999 hectares of bushland reserved in national parks had volunteer programs.

Herbicide Usage:

93.5% of organisations use predominantly Roundup herbicide. Garlon was also used by one organisation.

A total of 906 litres of glyphosate herbicide was used in 1994/95 and valued at approximately \$8 000.

How Volunteer Programs are Promoted:

90% of organisations actively promote their volunteer program (see table below). Given the dramatic increase in new volunteer programs and volunteer registrations in the last four years extension programs appear to be having the desired effect on the community.

field days	"Bushcare Week"	promotional videos
open days	"Adopt a Park" programs	displays in libraries, shopping centres or Council chambers
catchment open days	direct mail	annual parties
street meets	community tree planting	social events
on-site promotion	annual reports	BBQs
schools, TAFE's Uni's	newsletters	festivals
pamphlets	print media articles & stories	information centres
letterbox drops	newspaper advertisements	display banners
info with rate notices	television	display trailers
fliers in TAFE's & Uni's	radio stories & promotions	bushwalks
fliers in libraries & shops	on-site signs	direct contact

Major Volunteer Activities:

Volunteers have the opportunity to participate in a wide range of activities to help rehabilitate bushland, maintain enthusiasm, to play an active role in managing urban bushland and to gain an appreciation of the causes, challenges and complexities of rehabilitating degraded ecosystems (see below).

Volunteers in 96% of organisations regularly undertake more than just weed control and tree planting. The table below highlights the fact that a more wholistic approach is being undertaken when rehabilitating bushland, whereas in the past volunteers and professionals were predominantly weed focused. Volunteers are not only removing weeds, but are addressing the causes of the weeds by understanding the impacts of stormwater, nutrient enrichment and rubbish dumping. They are assessing the wider environment by undertaking mapping and site assessments, flora and fauna surveys, and appear to be involved in the active management and administration of programs through 'friends of' groups and management/advisory committees.

bush regeneration	flora surveys	drain stencilling
weeding	fauna surveys	fund raising
tree planting	rare plant surveys	administration
erosion control	mapping	committee work
storm water works	mowing	newsletters
weed spraying	site assessments & strategies	contributions
water monitoring	general maintenance	editing
nursery work	training	volunteer coordinating
seed collecting	planning	rock platform protection
propagation	education	rubbish removal
street tree planting	data collection	herbarium collecting
park tree planting	workshops	clean-up days
fencing	compiling flora and fauna lists	

Geographic Distribution of Volunteers:

The geographic distribution of the volunteer bush regeneration effort across the Sydney region is very uneven, being concentrated in a small number of municipalities. Six councils, representing 17% of all councils with bushland, (four in the north, one in the south, and one on the western rim), manage over 75% of volunteer groups, over 70% of all volunteers, and their residents contribute about 50% of all volunteer hours.

Discussion:

Few councils could accurately present the total volunteer hours, therefore estimates were given. For those councils unable to estimate volunteer hours, averages were calculated by multiplying the total number of volunteers by their contribution (3-4 hours) per work session by the number of work sessions per year. All national parks volunteer programs have daily sign-on registers and each group/individual is required to record their hours, which are then summarised quarterly and yearly. Therefore the total number of volunteer hours presented in this report is considered an informed estimate. Some organisations only included the actual bush regeneration hours and not activities such as administrative help and nursery work.

In a survey conducted in 1991 by Tein McDonald, a bushland rehabilitation consultant in Sydney (pers com. May 1996), it was estimated that 1 000 volunteers were working in the bushland of Sydney's local government areas. Now with 4 787 volunteers, this represents over a 450% increase in volunteer participation in four years which is also reflected by a 69% increase in new programs during the same period.

It is significant to note the very high return on investment of volunteer bushland rehabilitation programs (143%). In today's economic climate a return on investment of between 10-15% is considered good. Programs of this nature make good investment sense.

The six councils which manage 75% of volunteer groups, contain a high proportion of the city's total urban bushland resource, but socio-economic factors may contribute significantly to this concentration of effort. These councils are in higher status areas of Sydney with older, more established populations and generally higher incomes. The educational standards of their inhabitants may also be above average.

Residents in these areas are more likely to have more spare time to volunteer, have a more valuable local landscape to protect and enhance, be more likely to understand the pressing need to arrest bushland degradation, and may be in a better position to absorb the economic cost of contributing to bush regeneration programs.

Ironically, these six council areas are all based on Hawkesbury sandstone and contain a bushland type which is the most comprehensively protected and conserved vegetation association in NSW. It is also one of the most diverse native flora assemblages in the country.

The other 29 Sydney council areas with bushland control the remaining 30% of volunteers. These more urbanised municipalities have much less of the total bushland resource but paradoxically their bushland (eg. Cumberland Plain Woodland, Eastern Suburbs Banksia Scrub, Castlereagh Woodland) is often under greater threat of degradation and extinction and contains plant associations and species not well represented in Sydney's national parks, or conserved elsewhere. These council areas, particularly on the Cumberland Plain of western Sydney, should be encouraged to strengthen their volunteer ranks in an effort to better control threats to their irreplaceable urban bushland remnants.

It is easy to place an economic value on the contribution of volunteers to bushland rehabilitation but how do you evaluate the economic value of the social and environmental education benefits to volunteers and to the host organisation in return? The ongoing evaluation of the success of a program is imperative to ensure organisational aims, policies and direction meet volunteer needs and expectations and that appropriate funding is allocated to properly service volunteer programs.

The importance of actively promoting volunteer programs is highlighted by the number of new programs and the increase in volunteer registrations in the last four years. Volunteer bushland rehabilitation programs have become widely adopted throughout Sydney due to the combined effects of increased media attention, the promotional efforts of the respective organisations and the volunteers themselves. The fact that their work is often highly visible, of public benefit, and aesthetically pleasing is also influential in attracting new volunteers.

A consistent rise in volunteer numbers can be expected as environmental education courses (eg. TAFE and community college courses in bushland management), Federal employment programs and localised promotions within local government areas and national park districts, often involving bush regeneration topics and projects which aim to increase community awareness of the factors affecting bushland degradation, how to reduce negative impacts and of the need to protect bushland.

The number of volunteers in the Sydney region reflects the growing concern of the community and of their commitment to reducing the impacts of environmental weeds in urban areas, if given appropriate encouragement and resourcing. During 1995/96, two more of Sydney's local government areas commenced volunteer bushland rehabilitation programs and another council is preparing to launch a volunteer program in late 1996. 85% of councils which have bushland in the Sydney region will then be managing volunteer bush rehabilitation programs.

Conclusion:

The results of this survey indicate that increasing numbers of Sydney residents are prepared to actively contribute in a voluntary capacity to rehabilitating bushland. The 450% increase in active volunteer participation in the last four years is dramatic and is expected to rise. Government and land managers cannot deny the significant contribution of volunteers in managing bushland degradation, controlling invasive weeds and in improving the quality of urban life.

The people of Sydney have displayed strong and growing involvement in volunteering to rehabilitate degraded bushland. The long term success of their efforts are substantially dependent on government agencies meeting this increasing demand with appropriate resources, professional supervision and training.

Bushland rehabilitation programs and volunteer programs are expensive, labour intensive and require long term commitment. Land management authorities cannot make an impact on rehabilitating bushland alone. By encouraging volunteer programs of this nature, agencies can achieve greater success in achieving their management goals. Successful volunteer programs can enhance and complement existing weed management programs.

What Can Landcare Australia Ltd. Do For You?

Landcare is a movement of many names and faces. State and Federal government departments, non-government organisations, committees, individuals, coordinators, facilitators, specialists, and of course, Landcare groups. In the midst of all the acronyms, just who is Landcare Australia Ltd anyway?

The image conjured up by the name Landcare Australia is sometimes a large and faceless organisation. But in fact Landcare Australia is a small group of eight people in Sydney working hard to raise awareness of Landcare right across the population. We use money raised from sponsorship to run campaigns in the media and other promotions including some with schools and businesses.

Landcare Australia is not a representative of Landcare groups, a peak body, a government department, a lobbying organisation, a source of technical advice, the distributor of government funding or a policy maker.

Landcare Australia is a not-for-profit company, working with the corporate sector to raise sponsorship, running campaigns such as National Landcare Month, organising promotions in association with sponsors, raising funds for Landcare group projects and supporting groups to carry out their own local fundraising.

Landcare Australia was formed in 1989 by the Federal government to raise awareness about Landcare and encourage participation. The first five years of its existence were spent creating and promoting the Landcare logo and raising general awareness of Landcare. Corporate sponsors such as Uncle Tobys, BP and Telstra took on the fledgling Landcare movement and supported it through the early days.

National awareness of Landcare grew from 22% in 1991 to 66% in 1994, partly as a result of campaigns such as the Uncle Tobys Landcare television ads which ran every year, the BP Challenge magazine and television ads and the National Landcare Awards.

In 1994, corporate and public awareness of Landcare was at a high level. Landcare Australia moved in to capitalise on this goodwill by launching the Landcare Foundation to raise funds for on ground Landcare group projects.

Landcare Australia is now working on a mixture of sponsored awareness campaigns and raising funds for Landcare group projects. Around \$5 million has been raised in the past 18 months through the Landcare Foundation. In September 1995 national awareness of Landcare reached 69%.

What has Landcare Australia done for Groups?

Landcare Australia raises national sponsorship for Landcare group projects. We work with sponsors to provide cash and in-kind benefits to groups. Over the past three years Landcare Australia and corporate sponsors have provided:

- funding for 120 Landcare group projects, to the value of around \$2.56 million dollars;
- one million recycled plastic tree guards for Landcare groups and schools (with Telstra);
- free Roundup for every Landcare group (with Monsanto);
- photocopiers and fax machines for selected Landcare groups (with Fuji Xerox);
- a video and booklet on property management planning (with BHP Wire Products);
- a video and booklet on catchment management planning (with BHP Wire Products);
- free communication kit to each Landcare group (with Telstra).

In 1995 the Angry Anderson Challenge in association with Channel 9 saw nearly \$1 million dollars spread over 14 project sites to plant and fence off one million trees.

Landcare Australia provides support to Landcare groups who want to carry out their own fundraising. The company extends its tax deductibility to groups, so that local donors can receive tax deductible receipts for their contributions.

Fundraising development manager Peta Nagle runs training workshops for regional groupings of Landcare groups in how to raise funds locally. A fundraising kit is available from Landcare Australia to assist.

Answers to Most Commonly Asked Questions about Landcare Australia Ltd

Why does Landcare need an organisation like LAL? To ensure its long term survival, the Landcare movement needs to have support from all sectors of the community, including the urban population. It needs to be on the political agenda so that strong bipartisan support in terms of funding continues. Landcare Australia's national awareness raising activities aim to increase the level of knowledge about Landcare, promote a positive message and to keep it on the public and political agendas.

Is there a policy on choosing sponsors? The Landcare Australia Board has a policy about choosing sponsors. The company aims to work with organisations that are progressing towards the sustainable use of our resources. Landcare Australia does not endorse companies or products, but promotes the fact that the company or product is a supporter of Landcare.

Can groups get projects funded through the Landcare Foundation? Yes. Groups can apply to have their projects funded through the Foundation. We will aim to raise money to support your project, but cannot guarantee success. We can also help you to raise funds in your own area.

Fact File:

Organisation: Landcare Australia Limited

When formed: 10 October 1989

Why formed: To raise awareness about Landcare, encourage participation in Landcare activities and attract corporate funding for Landcare projects and awareness activities

Major activities: Ongoing fundraising and sponsorship, National Landcare Month, the National Landcare Awards, the Angry Anderson Challenge.

Contact details: PO Box 5002 West Chatswood NSW 2057.
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Sth New-England Landcare Coordinating Committee Display

In the Southern New England region Landcare groups first formed in 1990, and at present there are 19 groups. They realised there were a number of advantages in having some mechanism by which they could learn what other groups were doing. A committee was formed with a representative from each group, and later was expanded to include a member from the local councils.

The committee meets quarterly to outline the activities of each group and to discuss Landcare issues that have an impact on the groups. Members see the main functions of the Southern New England Landcare Coordinating Committee (SNELCC) are to communicate between the groups, to assist the groups in their functioning through a locally employed coordinator, and to promote Landcare in the region. Sponsorship was gained from Dumaresq Shire Council to provide office and support for the coordinator.

The coordinator's main role is to help groups with their group processes; inform groups of Landcare issues and opportunities; assist the group to obtain information, resources, etc; liaise with Catchment Management Committees, Councils, etc. on behalf of the groups; and promote Landcare to the wider community.

The success of Landcare is dependent on the successful functioning of the individual Landcare groups. A regional body should never be a substitute, nor take over the autonomy of the groups, rather it is there to assist and compliment their activity.

There are some problems that appear common to all groups, and SNELCC is putting in place methods/practices to overcome these. For example communication within groups is often haphazard and leads to ineffectual groups. To overcome this the SNELCC coordinator helps the groups develop methods such as a 'telephone/fax tree' as a way to shift information around the group quickly. As a back-up, and as an education/information source a quarterly newsletter is sent direct to all group members. This has the effect of enthusing inactive members of the group. The coordinator also works with each group's executive to help them develop skills which will lead to the better running of the group, and hence enable energies to be directed to activities rather than administration.

There have also been a number of benefits arising from the communication between groups. What one group learns is passed to other groups, and a number of cooperative larger scale projects have occurred. Having a coordinator to help the committee allows for activities to be organised across the groups, and visits by Catchment Management Committees or others can be coordinated to show a variety of activities occurring in the region. It also means there is a locally accessible Landcare contact to whom interested people and organisations can direct their first point of contact.

Having a regional Landcare body can help the individual groups to achieve more than they would have separately. However it is important to remember that the regional body is there to assist the groups, not take over from them. The success of Landcare is its harnessing of groups of local people to learn about and address issues that they see as being important. If a regional body starts setting the agenda then the ownership of action is lost, local groups become disempowered, and on-ground change fails to eventuate.

Granite Borders Cooperative Landcare Committee Display

The Granite Borders Cooperative Landcare Committee has a cross-border (Tenterfield-Stanthorpe) cross-catchment location. We put together two posters reporting on our lovegrass utilisation project. This project was NLP and NWCMC funded and supported by NSW Agriculture.

Landcarer Newspaper Display

Micheal Elvins from the Landcarer Newspaper had a display showing some of the past issues of this publication. Landcarer is available throughout most of NSW and Victoria.

Tocal College Display

This display was about Tocal College's certificate in Landcare. It aims to help you gain the knowledge and skills necessary to improve the condition of your land as well as community areas. It will give you a good sense of personal achievement and satisfaction, knowing you are doing something worthwhile for yourself, your family, the community and future generations. For more information phone free call 1800025520

Voluntary Conservation Agreements (National Parks and Wildlife Service- Community Based Conservation Programs)

Julianne Smart

Community Conservation Coordinator-National Parks and Wildlife Service

Approximately 95% of NSW lies outside of national parks and nature reserves and yet many of these areas have value for the conservation of wildlife. For example many species, even common species need to move across the landscape, feeding and/or nesting. Without being able to use habitat across the landscape these species may not survive. Yet it is not likely nor will it be desirable that nature conservation is achieved by using national parks or nature reserves only. Many landholders are already managing all or parts of their land to protect wildlife and there are a number of ways other people can obtain technical advice and other assistance to manage conservation values on all or part of their land.

The National Parks and Wildlife Service has a responsibility for a number of mechanisms which provide for joint management of habitat or technical on habitat protection to interested landholders. These are:

Voluntary Conservation Agreements:

- These are voluntary agreements which may cover all or part of a landholders land. They are negotiated to suit the particular management needs of each site;
- They are in effect a contract between a landholder and the Minister for the Environment;
- They are voluntary but once they are negotiated they are binding on that piece of land into the future;
- Landholders who enter into Voluntary Conservation Agreements are eligible for tax deductions applying to Landcare related activities and they may be eligible for rate relief (this is determined by the Valuer-General's Department and Local Government)
- The NPWS will (wherever possible) also assist landholders with on-ground works to help implement that agreement (for example where grazing is to be excluded- a fence) or bush regeneration plans;
- Voluntary Conservation Agreements can protect a variety of nature conservation values but also Aboriginal heritage, limestone features and historic heritage of national significance. Currently some Voluntary Conservation Agreements protect remnant vegetation, threatened species and Aboriginal sites;
- At the moment there are 32 agreements with up to 100 more in progress, and we've found that most people have agreed to enter into it either because they want to protect their land into the future and or because they want access to ongoing technical advice about their land.

A video is available on the Voluntary Conservation Agreement program, it explains a little more about the areas that can be protected and shows some of the landholders already involved in the program. It is available in each NPWS District Office. A pamphlet on Voluntary Conservation Agreements is also available from all NPWS Offices.

Wildlife Refuges/Land for Wildlife:

The Service has another voluntary program called wildlife refuges. We have just reviewed this program and will be adopting another program called Land for Wildlife which is also voluntary. The difference between wildlife refuges and Land for Wildlife to voluntary conservation agreements is that they are non-binding. There are approximately 500 wildlife refuges across NSW and owners already in wildlife refuges will not be affected by the adoption of Land for Wildlife.

Nature Conservation Component of the Farming for the Future Program:

You are probably aware of the Farming For the Future (FFTF) program- as officers from NSW Agriculture and the Department of Land and Water Conservation are also involved. At the moment there are also four NSW National Parks and Wildlife Service Property Planning Advisers. They are based in Queanbeyan, Bathurst, Armidale and Griffith District Offices. The role of the Service in this voluntary program is to provide information on how nature conservation measures can be incorporated into property management to contribute to the maintenance or enhancement of productivity, while improving farm's biodiversity.

Save The Bush:

Save The Bush component of the National Landcare Program is coordinated the NPWS. The program invites community groups to apply for funding to implement protection of existing remnants but also to educate people about the importance of remnants, some rehabilitation of remnants and plans for the protection of remnant vegetation. The Save the Bush Coordinator is based in the NPWS, Head Office at Hurstville.

Drought Landcare:

NPWS has also coordinated the Drought Landcare component of the National Landcare Program.

Property Management Planning: Farming for the Future's Efforts on the North Coast

Simon Proust (DLWC, Coffs Harbour), Mick Wilson (DLWC, Armidale), Chris Nadolny (NPWS, Armidale) and Sally Wright (Wongwibinda Landcare Group)

Agriculture is undergoing significant change in Australia. The pace of change will, if anything, increase in the future. Farmers face changes ranging from stricter environmental guidelines and market deregulation to changing consumer demands. The challenge for primary producers is to adapt to these changes while managing their farm sustainably under fluctuating climatic conditions. This, together with meeting their own personal family goals while maintaining farm profitability and viability, is no mean feat.

Property Management Planning is a useful tool to manage change and enhances the ability of farming families to face pressures and capitalise on new enterprise opportunities. Property Management Planning is an integrated, on-going approach to planning the management of a farm business. It extends the concept of whole farm planning to cover every aspect of farming. Physical, financial and personal aspects of managing a farm business and risk management are all considered. Farm families assess their resources and business opportunities and are encouraged to formulate clear, achievable goals.

Farming for the Future is funded by the National Landcare Program with contributions from the State government. In New South Wales, the program is jointly promoted by the Department of Land and Water Conservation, NSW Agriculture and the National Parks and Wildlife Service and supported by the NSW Farmers Association.

The delivery of the program is through landholder workshops which are targeted at groups of farmers and more specifically farm families. The program encourages the forming of farmer groups to participate in workshops or often it targets existing Landcare, NSW Farmers Association, beef marketing, dairy discussion or horticultural industry groups.

The North Coast region of the Department of Land and Water Conservation (DLWC) encompasses all coastal catchments from Tweed Heads to Comboyne, some 500km to the south. Over the past two and a half years, 125 Property Management Planning workshops have attracted 1700 families on topics ranging from whole farm planning (4 days), introduction to computers (2 days) and one day workshops on soils, farm business and financial planning, nature conservation, complementary enterprises, farm forestry, risk management, family succession and estate planning.

In 1995/96 throughout NSW 416 workshops were attended by 3458 farm families. These workshops typically deal with a particular aspect of Property Management Planning. An integrated series of workshops to cover all aspects of Property Management Planning in 8 sessions, run over 7-8 days during a six month period is being developed.

There are two Farming For the Future extension officers dedicated to the North Coast with two other extension officers spending part of their time in the region. There are significant contributions from agency extension staff such as district agronomists, soils surveyors, catchment managers, horticulturalists, beef cattle, dairy, farm forestry and Rivercare officers and Landcare and Catchment Management Committee Coordinators. There is also support in promoting the program and conducting workshops from industry extension officers, Greening Australia project officers and private consultants.

Feedback from landholders has been overwhelmingly positive. This has been demonstrated by their willingness to act as advocates in promoting the program to the wider farming fraternity. Consultative meetings to gather feedback on the workshops and ideas for new directions in the program are held every three months on the North Coast. Farmer representatives from Landcare, TCM, NSW Farmers and industry groups, along with agribusiness representatives, adult education providers and rural services providers and agency staff, are invited to these consultative meetings.

The location of these meetings is varied and the majority of participants are invited from nearby, so attention can be focused on local issues. Participants claimed the property planning workshops improved farmer's capacity to control their operations, helped them develop a long-term view, and made the family much more involved in the planning process.

Property Management Planning is conceptually linked to Landcare and catchment planning. Property Management Planning encourages participants to think holistically, and with a long-term perspective, taking their whole property and the views of everybody involved in the business into consideration. Tackling Landcare issues systematically within a particular sub-catchment can be done using a similar approach. In fact, group sessions in Property Management Planning in which participating farmers focus on environmental issues on their properties, can make them more aware of which issues are most important in their locality. Some Landcare groups which have attended Property Management Planning workshops have gone on to develop sub-catchment plans to tackle local environmental issues systematically.

The Property Management Planning process is useful in helping farmers to adapt to a changing world and encourages them to think of their farm holistically and as part of a catchment.

It is a tool to assist farmers to develop sustainable land, water and vegetation management practises on their farms which is the fundamental building block of achieving clean, healthy and productive catchments for the community.

Sally Wright - Personal Comments and Experiences:

Our property consists of 2000 hectares of eastern New England country 66kms north east of Armidale. It ranges from rolling hills to steeper rocky country with a similar range in soils from good quality trap and small basalt caps to very poor trap with very little topsoil. Much of the property was originally cleared (100 years ago) and it varies now from almost treeless country on the better soil to heavily timbered areas, some of which is 50 to 60 year old regrowth.

We run 3 or 4 enterprises depending on the seasons: 1000 Fine wool Merino breeders (buying rams); about 2000 Merino wethers with an occasional top up of bought wethers to cope feed variations and market situations; 450 Beefmaker (Simmental/Hereford) and Angus which we crossbreed (buying in bulls selected with the help of Breedplan) and a backgrounding or steer fattening enterprise depending on seasons and possible markets. We are now looking at agroforestry.

A property plan doesn't look much. In fact the vision overlay would appear as nothing few red scribbles to an outside yet I know it will be a crucial farm tool for us over the 10 to 20 years.

My major regret is that we didn't do one 10 years ago when we inherited the property because we'd be 10 years further down the track! (Or even better couldn't we have done one 30 ago and saved some of the intergenerational angst?) At our age (50+) we need every effort to pay off in terms of ease of management, financial returns and sustainability.

Now that we've started a formal plan I feel much more comfortable about getting somewhere in the future. It's not what's on the plan - it's the process of study, discussion and lateral thought that counts and that should change our way of thinking and managing.

What have we done with the Farm Plan? Not much yet and yet I still wouldn't be without it -or the following reasons why:

- We're thinking much further out in terms of time. Changes that seem too big become achievable when they are set out in little annual steps towards a goal.
- We're making decisions at a time when it isn't a hassle. I don't react well to being told that the fencers are here - Where do I want the fence? That sort of decision doesn't often get the fence in the right place. We're giving ourselves time to consider all the possibilities. Different management areas, possible future divisions, is there going to be a place for a dam if we need to divide the paddock again? Is this going to complicate or ease stock movement? Is there a remnant that we can fence off and thereby improve paddock health and ease management at the same time?
- We're more confident about the decisions we do make. They've been tossed about to the best of our ability - maybe they're still not quite right but we've given ourselves a better chance of getting them right.
- We're making decisions together so no one can throw blame about when plans go wrong. It's not one partners fault when the fence or the yards prove to be in the wrong place.
- We're dealing with management problems that have been an accepted part of this property for 40 or 50 years! For example: fence off the creeks so there are no vulnerable floodgates onto the highway. Aim all fencing towards stock movement corridors so we don't have to use the highway.

- We're using the plan as a forum to accommodate different views and to compromise. For example: we both want windbreaks but should they be native trees or pine trees. There's room for both with planning.
- We're finding that planning gives a more positive feeling about the property and the future. All right, there are a lot of problems but we know how to solve them. It might take a long time but we can get there eventually.
- I don't think we learnt a great deal that we didn't already know before attending the workshops. However, I don't think that was the case with everyone in the group. We built on the skills that were there and reinforced and organised the values and ideas that were knocking around in the back of our heads.
- I must mention that in our area the Farm Planning sessions were often the first time the wife had taken any part at all in the property so they were the start of huge new opportunities for them. It's different in our case because my husband was an agropolitician, so I have been the primary manager for several years.

I haven't yet mentioned what really are still the major financial decisions: What enterprise mix? What to spend on fertiliser? Which pastures to work on next? Grazing management?

The plan provides a context into which all these things fit - ie background. A reminder that everything has a consequence in terms of the future sustainability of the property. 'A big picture - as current terminology has it. A scheme in which financially rewarding changes can be made and sustainability improved at the same time.

This brings me to what I have come to see as a very important secondary reason for whole farm planning. My involvement as a member of the Clarence Catchment Management Committee reinforced this. Is it really worth all the effort to plant trees, fence off the creek or dams or exclude stock from our remnant vegetation?

I think we can justify it on our property. However, if every landholder in the Clarence implemented the same practices, then in thirty years time we wouldn't have an Environment Protection Authority reporting that the Clarence is unfit for drinking or swimming as was the case in July 1995.

I think we can look on our plan as important; firstly to ourselves; secondly to the catchment; thirdly to Australia and, if you want to keep going, to the world.

Catchment Management / Estuary Management

Jock Brodie

Estuary Management Program

Department of Land and Water Conservation

Introduction:

In April 1995 the Department of Land and Water Conservation (DLWC) was formed with the vision to achieve clean, healthy and productive catchments for the twenty-first century.

The ocean, the coastline and our estuaries are covered by the NSW Government's Coastal Policy. Because the Australian continent is so dry, our estuaries are dominated by marine processes rather than freshwater flows. Nevertheless, catchment activities do have an impact in estuary health and well being.

Estuaries:

Estuaries and the coastline are located within the transition zone between the ocean and the land. As such they are subject to a unique combination of marine and terrestrial influences. Whilst this makes estuaries special from an ecological viewpoint, it also renders them very complex both technically and administratively.

In New South Wales there are some 130 estuaries, varying in both their nature and size. Whilst a few comprise the seaward ends of our eastern flowing rivers, the great majority are not connected to significant riverine systems. These are the numerous coastal lakes and lagoons that are characteristic of the New South Wales coastline. Also significant are the many coastal salt water wetlands.

It is estimated that over the past 200 years some 60% of wetlands have been degraded due to filling and/or drainage as well as by the impact of urban development and agricultural activities. The remaining areas, whilst seldom any longer under direct threat of physical loss, are subject to increasing demands.

Estuary Values:

Estuaries are a focus for development with approximately 85% of the State's population living near an estuary.

From an ecological viewpoint, much of the value of estuaries lies in their biological resources and the functions that they perform. Estuaries provide a valuable and unique habitat for plants, birds and particularly marine organisms.

From a commercial viewpoint, estuaries have multiple values. They are of direct significance for industries as diverse as oyster cultivation, power generation and tourism. They provide desirable harbours and transport routes for shipping; they contain significant resources of sand and gravel; they provide nursery areas for many fish species; they provide desirable locations for adjacent housing and industry; and they provide opportunities for recreational boating and fishing.

Changing Values:

Community perceptions and attitudes towards the values of estuaries and environmental issues are highly dynamic. It was not many years ago that extensive areas of the State's estuarine wetlands, mangroves and saltmarshes were being filled for urban development and waste disposal or drained for agricultural purposes. Today, we know more about their values, particularly estuarine ecosystems and fishing resources, and we call them 'wetlands' rather than 'swamps'.

In the current more enlightened climate there is limited direct threat to estuarine wetlands. However, the natural resource has been significantly degraded and the concept of ecologically sustainable development is not sufficient, there needs to be a program of positive improvement if we are to properly address past degradation and future sustainability.

Competing Demands:

Many of the early uses of estuarine areas and their surrounding catchments involved attempts at changing natural processes and converting resources to meet the needs of early settlers. Today, the results of this use are evident in degraded habitats, loss of vegetation and wildlife and the turbid waters of some estuaries.

Competition for the use of estuarine resources leads to many modern day disputes. Conflict often occurs between long standing traditional users of an estuary and more recent ones. It also occurs in areas where our understanding of the impact of an activity has changed and some past activities no longer constitute an appropriate use of the resource.

Growing demands on estuarine resources from environmental, recreational, mining, commercial fishing, and other industry interests are increasing the complexity of the task of estuary managers in meeting the demands of estuary users. One of the more controversial modern day disputes involves the interests of commercial and recreational fishing groups as they compete for threatened and declining fish stocks. Another common conflict occurs between mining and environmental interests. Recreational boating activities are beginning to conflict with one another as demands for access near major urban centres start to exceed supply. Agricultural and urban development practices are longstanding problems in terms of potential sources of siltation, acid runoff, nutrients, contaminants and rubbish. It is now being recognised that increased urban development adjacent to estuaries is threatening the very values that encouraged the development in the first instance.

Catchment Management:

Catchment Management is the community and government working together to address natural resource management issues from a total catchment management perspective.

Policy:

At a policy level, estuaries fall under the Government's coastal policy. This policy is currently being reviewed by the NSW Government and a revised policy is anticipated in the near future.

The catchments within which estuaries lie are covered by the Government's Total Catchment Management policy under which a number of resource management policies sit. These policies are coordinated by the State Catchment Management Coordinating Committee.

This committee is serviced by the Department of Land and Water Conservation. It has an independent chairperson and includes representatives from local government State agencies, Catchment Management Committees, the environmental movement and farmers. Catchment management ultimately remains the responsibility of the landholders who own the catchment.

Coordination and liaison between the two State committees is achieved by extensive common membership and detailed exchange of information.

Estuary Management:

Estuary management involves working with the community to help them determine an integrated ecologically sustainable estuary management plan then manage the implementation of that plan. The focus on the well being and rehabilitation of estuaries is supported through the government's estuary management program. This program is jointly funded by the State and local government. Plans are developed under the auspices of local steering committees comprising community, CMC, council and agency representatives. The program is dedicated to the conservation and improvement of estuaries and actively supports the rehabilitation of degraded areas.

The objectives of the program include:

- implementation of local community based estuary management plans;
- restoration of degraded estuarine habitats;
- extension of existing estuarine wetlands;
- protection of estuarine habitats and ecosystems, and;
- the ecologically sustainable use of estuaries.

The program provides direct financial assistance for the preparation and implementation of management plans and rehabilitation works.

Coordination with TCM:

Local coordination between TCM and estuary management is achieved by common membership of catchment management and estuary management committees. Focussed estuary management plans have to be designed to dovetail with broader catchment management plans developed by the Catchment Management Committee. Estuary management is consistent with TCM but locally focused and locally resourced.

Estuary Plans:

A typical plan might include:

- Planning controls covering foreshore land use;
- Regulations covering speed limits for boats;
- Works to create or enhance marine habitats (wetlands), reduce pollution (GPT's), remove ooze and sediment from foreshore, stabilise banks, improve water circulation or reduce catchment runoff problems caused by siltation and nutrients.

Advantages:

The advantages of Estuary Management Plans are they:

- reverse degradation and sustain ecosystems;
- provide a sound basis to support development controls;
- identify natural hazards to minimise the risk to developments (non-build solutions).

Estuary Management Committees:

To date a total of 60 Estuary Management Committees have been established by local councils of which:

- 30 have completed data compilation studies;
- 24 have completed process studies;
- 21 have completed management studies;
- 13 have completed management plans;
- 7 management plans are being implemented.

Conclusion:

Estuary Management Committees focus on the well-being of the estuary and work in close cooperation with Catchment Management Committees.

The success of the Estuary Management Program and the rapid growth of Estuary Management Committees is a credit to communities and local councils which accepted the challenge of responsible management of the complex issues affecting estuaries.

The Building of The Illawarra Catchment Information and Planning Support System Display

Jane Caldwell

Coordinator

Illawarra Catchment Management Committee

The Illawarra Catchment Management Committee is building an information and planning support system that incorporates spatial and attribute data within a single framework. This is being achieved through the use of a Geographic Information System (GIS) which will be linked to a series of relational databases (Microsoft ACCESS). In its simplest form, a GIS can be viewed as being analogous to a computer-based atlas, whereby data layers within the GIS correspond to pages in the atlas and which allows the spatial distribution of data to be viewed and subsequently interpreted from a visual perspective. Using a GIS allows the investigator to incorporate data and view its spatial distribution in a way not obvious from simple interpretation of attribute data.

Background:

The Illawarra Catchment Management Committee had for several years tried to attract funding to develop an environmental database. A partnership between the committee and the School of Geosciences, University of Wollongong during 1993 and 1994 further refined and focused the initial concept with the strategic decision made to focus on a particular natural resource component, ie wetlands. A grant application to the NSW Environmental Trusts was successfully submitted with work beginning on the project in late 1994.

To focus the creation of an initial database that could be used by the Illawarra Catchment Management Committee to broaden its understanding of catchment issues, a wetlands-based project was decided on. Wetlands are important ecosystems and are an integral part of most major catchments, helping to reduce flood impacts, maintain water supply, recharge water tables, can provide a recreational focus, and are of course intrinsic to a regions biological diversity and health.

Hardware and Software:

The first procedure in setting up the GIS was to purchase suitable computer hardware and software. An IBM compatible PC was bought (Pentium 60 MHz CPU, 16 Mb of RAM, CDROM drive, 1 Gb hard drive, Colorado 350 backup tape drive and running Widows 3.1 with a 15" monitor) which was later upgraded to a Pentium 90 MHz CPU with 32 Mb of RAM and WINDOWS95 operating system.

Two software packages were purchased to integrate the GIS with word processing, database and drawing facilities; Microsoft Office and CoreIDRAW. An Epson Stylus Pro XL A3 colour printer was purchased to assist in the production of hard copy products.

The key software was of course the GIS software itself. After a lot of consideration into the future needs of the Illawarra Catchment Management Committee's GIS, the types of data available and the resources available two systems were purchased- ArcView 2.1 and IDRISI for Windows.

Creating and Using the Wetland Database:

The wetland database was created using a Topcon stereo digitiser at the School of Geosciences. This device allows a stereo pair of aerial photographs to be viewed and the operator then digitally traces the outline of the attribute being mapped within the computer environment. This data is then transferred into the GIS after completion and checking of the data.

The final product from the wetlands project produced a spatially accurate (+/- 5m), classified wetlands database, which can be used with a variety of other data layers. A classified general landuse database was also created from a satellite image (February 1995).

Since the system was installed in January 1996, the GIS has been used in several local landuse issues and all three local councils and DLWC have received a copy of the wetland database for incorporation into their

own GISs. In July 1996 funding was successfully obtained to employ a part time GIS support services provider. This provider is now undertaking a project to bring together the wetland mapping data and other data on wetlands (fauna, flora, water quality, conservation status, etc.). This will result in the publishing of a regional wetlands inventory (hard and digital versions) for distribution to councils, government agencies, wetland managers and community groups restoring wetlands.

The Future:

In future we aim to develop a catchment-based database to complement the wetland-based system. A catchment-based database will allow a more relational system to be established for integrating data obtained from a given watershed. It is envisaged that additional data from water quality monitoring sites will be incorporated into the GIS and greater use of the abundant published data on the regions biota. The relational databases (ACCESS) will be linked to the GIS through either geocoding or the referencing of individual data items to a catchment.

Our ultimate aim is for the user to be able to select a catchment they want to look at and then by clicking on buttons adjacent to the catchment map on screen, add information onto the basic map which will then be updated and displayed - for example, they may like to see wetland areas mapped, where Landcare groups are located, what water quality monitoring stations exist, how many Streamwatch schools are in the catchment, and what local government area the catchment is in. By clicking all these "themes" on, they will, in a simple step by step menu-driven process, be able to compile and print out a colour map of selected data for an individual catchment.

Murrumbidgee Catchment Management Committee Display

Murrumbidgee Catchment Management Committee's (MCMC's) exhibition is purposely designed to help the community of the Murrumbidgee Catchment identify members of the Murrumbidgee Catchment Management Committee.

The exhibition has a map of the Murrumbidgee Catchment showing where members of the Murrumbidgee Catchment Management Committees live as well as photographs and contact details. Also included on the display are some of the physical attributes of the catchment and some very succinct text providing facts about the Catchment and the functions of the Murrumbidgee Catchment Management Committee.

An integral part of the exhibition is the "Murrumbidgee Catchment Management Committee Member's Profile" booklet which is handed out to people interested in more details of the individual members. This booklet contains a brief autobiography of each member together with photo and contact details. For each member the booklet outlines his or her special area of interest.

The exhibition tours the Murrumbidgee Catchment extensively and has helped many people get to know their local representatives and how this person may be able to assist. It also provides people with an idea of how they fit into the picture of whole catchment and, in doing so, assist the adoption of a Total Catchment Management perspective.

The exhibition provides an example of how one CMC has attempted to make itself known to community and assisted individuals and groups in dealing effectively with the CMC.

The Cowan Catchment Management Committee Display

The Cowan Catchment covers approximately 16,430 has. Its boundaries are the Hawkesbury River to the north, Pacific highway to the west and south and Mona Vale Rd and West Head Rd to the east. The catchment drains areas of Mt. Ku-ring-gai, Hornsby, Waitara, Wahroonga, Turramurra, St Ives and Terry Hills. Residential settlements of Brooklyn, Danger Island and Cottage Point are also located within the catchment.

The Catchment Committee is involved in a joint venture to eradicate pampas grass with other major players. Pampas grass has the potential to become a major weed in urban bushland areas. The plan hopes to eliminate it while it is still controllable and involves a three stage plan of search, destroy and follow up.

Berowra Catchment Management Committee Display

The Berowra catchment area, in northern Sydney, covers approximately 40,000 hectares bounded by the Hawkesbury River, Pacific Highway and Old northern Rd. An estimated 80,000 people live in the catchment. Many thousands of hectares of the catchment are conserved in national parks and bushland reserves.

The Berowra Catchment Management Committee was appointed in 1994 by the Minister for Land and Water Conservation. Its role is to bring people and agencies together to identify problems and determine how they can be overcome.

In September 1993 as a result of long-standing concern about deteriorating water quality in Berowra Creek, Hornsby Shire Council placed a moratorium on development. In April 1994 a 'Community contract' for Berowra Creek was signed. Signatories agreed to work together to achieve ecologically sustainable development for Berowra Creek catchment and to recover the creek's environmental health.

The Berowra Catchment Management Committee are also overseeing a unique community based ecological survey of the catchment called project QUACK. Water quality, macroinvertebrates and bushland is being monitored in 19 locations ranging from the remote to urban and rural environment.

Lachlan-Central West Catchment Committee Display

The Central West Region has two Catchment Management Committees operating within its boundaries, the Lachlan and Central West, which has a combined area of approximately 180,000 sq. km. The Committees have very strong links with Landcare groups across the region. The Landcare groups, with assistance from the Catchment Management Committees, are developing regional plans to address key environmental problems such as riverine corridor degradation and dryland salinity. A great deal of research has been carried out to assess the severity and extent of these problems. The combined coordinated approach from Catchment Management Committees and Landcare groups will result in the arrest of these types of degradation.

Urban Total Catchment Management Display

Our display emphasised that Total Catchment Management in urban areas hinges on communication between thousands of people with different racial, cultural, and political backgrounds to address a plethora of environmental issues (and solutions) in urban catchments.

Hawkesbury-Nepean Catchment Management Trust Display

The health and well-being of Sydney depends very much on the health of the Hawkesbury-Nepean River. This display outlined that a major part of the Trust's role is to ensure that the wide range of economic activities that provide jobs, housing, industry and recreational activities do not further threaten our natural resources. The Trust has established Catchment Management Committees (CMCs) to assist in the coordination of natural resources at a local level. The existing CMCs are the Upper Nepean, Middle Nepean-Hawkesbury, Cattai, Blue Mountains, Berowra, and Cowan. As the Trust's regional arm, they also provide advice and support on key issues.

Department of Agriculture Display

The display trailer we had at the expo showed some of weed control problems and information is available on how to control them.

Murray Darling Basin Commission Display

This display outlined the Murray-Darling Basin initiative. It reflects the importance of cooperative commitment to sustainable management of the world's largest integrated catchment management program.

North Coast Catchment Coordinating Committee Display

The North Coast Catchment Coordinating Committee is a committee comprising of the chairpersons and Coordinators of the 11 NSW North Coast TCM Committees. The jigsaw exhibit is a focal point for a range of interactive activities. Members of the NCCCC attended the display and carried out activities.

Lower Shoalhaven Catchment Management Committee Display

TCM requires focusing on long-term strategies as well as immediate on-the-ground work. These panels showed examples of how the Lower Shoalhaven Catchment Management Committee is working to achieve TCM with short-term projects and long-term management change. Examples included the Remnant Vegetation Management Strategy, Shoalhaven Riverbank Erosion Control program and the Cumulative Impact Monitoring program. These examples highlighted the role of the community and the interaction with government agencies.

State Forest Display

This display provided a summary of State Forest's role and forest management in NSW. A wide range of free publications is available including information on the eucalypt plantation program.

Upper Parramatta River Catchment Trust Display

The display illustrated the Trust's concern for TCM through its water quality management strategy 'Streamly Clean'. Of prime value to the Streamly Clean program is testing of catchment creeks by 14 high schools. This testing also monitors run-off from the M2 as it crosses the catchment and the construction of the recently completed Loyalty Road flood basin. Clearing of exotic, noxious and unwanted growth from reserves and creekbanks by detainees of Silverwater and Parramatta Periodic Detention Centres has made it possible for community groups to carry out replanting and maintenance. A heavy metal survey is currently underway to determine what influence motorways and industrial areas have on the catchment.