Land & Water Australia's Rivers Forum 2002

Wednesday 20 March — Rivers Forum, Old Parliament House, Canberra

Welcome 9.00am
Bobbie Brazil, Chair, Land & Water Australia

Welcome to Country
Matilda House, Ngunnawal Elder

The Forum will be facilitated by Michael Williams

Session 1
9.20 – 10.45am Protecting our rivers
Which rivers in Australia need protection and why? How do people value their rivers? What mechanisms can we use to protect rivers? What has worked overseas? How can we engage the wider community to think about river protection and why is this important? Speakers in this Session will include Eric Bell (Ngunnawal Elder), Professor Peter Cullen (CRC for Freshwater Ecology) and Dr Richard Kingsford (National Parks & Wildlife Service).

10.45 – 11.15am Morning tea

Session 2
11.15am – 12.45pm Planning for river protection and restoration
Public awareness, and good environmental protection and restoration techniques are all critical aspects of good environmental policy, but how do you go about achieving the two? What planning tools are currently available in the river's industry and what can the river's industry learn from other sectors of the community about how to raise public awareness? Speakers are Alan Pinsker (National Tobacco Campaign), John Chadban (Mayor, Great Lakes Council) and Dr Ian Rutherfurd (University of Melbourne). 12.45 – 1.45pm Lunch

Session 3 THIS Session SUPPORTED BY LAND, WATER AND WOOL
1.45 – 3.00pm Rivers and rural industries
What do rural communities feel are the key water management issues facing Australia? What information do rural industries need to know in order to make informed decisions and water management? What are the natural resource issues from their perspective and how can effective communication between rural communities and R&D organisations/catchment management groups and government agencies occur? Speakers are Mike Logan (cotton, cereal and beef producer), Ian Rogan (Catchment Board Chair and Rural Advisor) and Lindsay and Biz Nicholson (farmers, Bonneys Plains, Tasmania).

3.00 – 3.30pm Afternoon tea

Session 4
3.30 – 5.00pm Promoting and communicating your message. But wait… there's more!
How do you sell something to people when they don't know they need it? What techniques can you use? In this Session we will learn how other industries promote themselves and get some ideas on how the river's industry can do the same. We will learn from examples of successful campaigns that have used direct marketing techniques, music, art and poetry as essential communication tools Speakers include Tim Shaw (Best Direct — Communications and Strategy) and Bill O'Toole (Sirocco).

5.00 – 6.30pm Evening drinks with music by Sirocco

Thursday 21 March — Researchers on a Riverbank, Yass region, NSW

The day will be focused on the science underpinning recommended practices to deal with a range of river management issues. Participants can select three topics from the four offered including sediment control, stock management, in-stream health, demonstration sites/knowledge exchange and vegetation management. They will be able to discuss with researchers working in these topic areas how to translate the science into practice.

8.00am Buses departs for Yass from Canberra

9.30 – 10.15am
Introduction and group discussion
An introductory seminar on river management techniques and how to practically apply science to river management issues will lead the group into specific topic areas.

10.15am – 1.00pm
Three rotations will take place between 10.15am and 1.00pm, with participants choosing which topic Sessions they would like to attend.

Streambank stabilisation, erosion control, sediment runoff, planning for river management
Dr Ian Prosser (CSIRO Land & Water)
Dr Jon Olley (CSIRO Land & Water)

In-stream ecology: how to restore riparian zones to improve river health, river and land connectivity, food chains
Professor Stuart Bunn (Griffith University)
Professor Peter Davies (University of Western Australia)

Stock and weed management, social dimensions of river management. How to get the most from demonstration sites
Professor Alistar Robertson (Charles Sturt University)
Dr Amy Jansen (Charles Sturt University)

Revegetation techniques, weed control and riparian species selection. On-ground work techniques based on a Bidgee Banks project
Ms Lori Gould (Greening Australia)

1.00pm BBQ lunch and open question time

2.30pm Buses departs for Canberra (and airport)

Original Registration Forms for the Rivers Forum:
2 page brochure & registration form (PDF, 63k)
6 page brochure & registration form (PDF, 330k)

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Forum 2002 Session 1

Land & Water Australia's Rivers Forum 2001
Session 1: Protecting our Rivers

Presenter: **Prof Peter Cullen**
CRC for Freshwater Ecology

Conserving Natural Rivers

Australia's rivers and wetland systems, because of their highly variable pulses of flow, are rich in biodiversity, but are under serious threat due to human activities. There are four reasons why we need to maintain natural freshwater ecosystems:

- meeting our international biodiversity obligations (Australia signed the International Convention on Biological diversity of 1992 in June 1993),
- providing benchmark reference areas so we can assess how much more our managed rivers have departed from the natural condition,
- providing "seeding" sources to help re-colonise areas that have been damaged, and
- the various aquatic species are of value in themselves, and the communities provide essential and often irreplaceable genetic material and ecosystem services.

Cullen and Lake (1995) outlined the main threats to aquatic biodiversity.

- Habitat Degradation, including loss of connectivity
- Exotic Species
- Over-exploitation
- Secondary Extinctions
- Pollution

Regional catchment authorities face a range of ways they can intervene if they wish to achieve some biodiversity outcomes. There is widespread agreement that it is far cheaper for society to prevent degradation in the first place, than it is to try and restore degraded systems. Many of our rivers have been degraded, which makes protecting the remaining relatively intact rivers a priority challenge.

If catchments have a fairly "natural" system, with good populations of native fish or other biota recognized as important, then it is important to ensure catchment activities do not lead to degradation. Typical degrading processes will be discussed in the presentation.

There is a clear case for a National Heritage River System. In agreeing to formally designate rivers as Heritage Rivers under proposed amendment to the Environment Protection and Biodiversity Conservation Act, Catchment Authorities should be eligible for two years of Federal funding to undertake reconnaissance and planning studies, and then ongoing management funding.

Further Reading

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Australian State of the Environment Committee, 2001. Australia State of the Environment 2001, Independent Report to the Commonwealth Minister for the Environment and Heritage, CSIRO Publishing on behalf of the Department of the Environment and Heritage, Canberra.

Cullen, Peter (2001) Challenges to Aquatic Conservation Keynote Address. Fenner Conference on the Environment Canberra, 5-7 July 2001

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Strayer, D.J., S. Glitzenstein, C.G. Jones, J. Kolasa, G.E. Likens, M.J. Mcdonell, G.G. Parker & S.T.A. Pickert (1986) Long term ecological studies: an illustrated account of their design, operation and importance to ecology. Institute of Ecosystem Studies. Occ. Publ. 2. Millbrook, New York 2 1-38.

Swanson, F.J. & R.E. Sparks (1990) Long term ecological research and the invisible place: the local to global spatial scales of the long term ecological research program. Bioscience 40 502-508.

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Waterbirds, wetlands and rivers - what have we learnt about river conservation?

Presenter: **Dr Richard Kingsford**
National Parks & Wildlife Service

Humans need water. We drink it, grow crops with it to feed and clothe us (e.g. rice, orchards, cotton, grapes), use it to generate electricity and supply industry and much of this water comes from rivers. Some human communities depend on the natural flood cycles of such rivers for their livelihoods. For every dryland river, there is also an ecological community, with high levels of biodiversity reliant on vast floodplains and the rivers that supply them.

The most serious threat to the ecology of dryland rivers is from diversions, regulation and floodplain development. Such water resource development has affected rivers, wetlands and the human communities that depend on them. Boom and bust ecology of dryland rivers does not equate with the regular flows needed for irrigation in particular. There is growing evidence for the impacts of water resource developments on biodiversity and floodplains, particularly from the most developed large river basin in Australia - the Murray-Darling Basin (1.06 million km^2).

Governments began water resource development early this century by building major dams on the southern rivers, the Murray and Murrumbidgee. Governments then focussed water dam building on the more northern and arid rivers, with upper catchments in high rainfall areas. Establishment of the ability to pump from unregulated rivers into off river storages ensured that further water resource development was possible on rivers with highly variable flooding regimes.

The ecological consequences of this water resource development in the Murray-Darling Basin have been as profound as in other arid regions of the world. The Barmah-Millewa Forest, Chowilla floodplain, Macquarie Marshes and Gwydir wetlands are four examples of floodplain wetlands for which impacts are reasonably well understood. All are part of the national reserve system and listed as wetlands of international importance under the Ramsar Convention, however, this did not protect them. All have experienced a reduction in the frequency and extent of flooding, reducing wetland size. Floodplain developments have contributed to the alienation of the floodplain. Biodiversity and ecological processes have all declined considerably. The extent and health of aquatic vegetation, populations of waterbirds, invertebrates and fish have declined, as have the livelihoods of people dependent on floodplains for their income. The floodplain margins have either become terrestrial or developed. Aquatic ecological processes have also declined.

Human needs, particularly for irrigation, still govern river management priorities and objectives for many rivers in arid regions of the world. More recently, river communities and their Governments in Australia are rethinking river management for developed rivers and undeveloped rivers. New models for managing rivers and protecting their flows have arisen with considerable support from local communities. Two examples stand out - the Lake Eyre Basin Agreement and subsequent water management plan and the draft Paroo River Agreement. In this talk, I examine some evidence for impacts of water resource development on wetlands and give examples of the benefits of a new approach to river conservation as exemplified by the Lake Eyre Basin (Cooper Creek) and the Paroo River (last free-flowing river in the Murray-Darling Basin).

Further reading:

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Forum 2002 Session 2

Land & Water Australia's Rivers Forum
Session 2: Planning for River Protection and Restoration

Presenter: **Alan Pinsker**
National Tobacco Campaign

Australia's National Tobacco Campaign - 'every cigarette is doing you damage' Overview of a national social marketing campaign

The National Tobacco Campaign (NTC) has been described as 'the most collaborative, intense and sustained anti-tobacco campaign ever seen in Australia'. Based on international best practice, the desired outcome of an anti-smoking campaign like the NTC is a reduction in smoking prevalence of around 1 per cent per annum - in the first three years of the NTC a reduction of 3.4 per cent was achieved. Since the launch of the campaign in mid-1997, the national adult smoking prevalence rate has been reduced from 23.7 per cent to 20.3 per cent (November 2000 survey), representing somewhere in excess of 300,000 less smokers. The campaign has won a number of creative and advertising effectiveness awards in Australia and internationally, and more than 43 countries across the world have applied to use NTC campaign materials.

The core campaign elements of the NTC have included seven television commercials, radio commercials, website, the national Quitline and a comprehensive public relations /stakeholder strategy, which included targeting general practitioner's and pharmacists.

The research and theory underpinning the development of the creative strategy for the campaign included a review of 40 years of psychological research, and more than a decade of market research commissioned by various Australian anti-smoking campaigns. The theory behind the campaign includes a 'consumer orientation', the application of 'exchange theory' (which asserts that an individual will only make a behaviour change if they have a perception that the 'cost' of undertaking the required action is outweighed by the benefits) and 'stages of behaviour change' theory (which suggests there are certain key facilitators that need to be in place in order for an 'intention to act' to translate into action). A key element of the campaign is the use of extensive developmental research to identify key issues and messages, extensive rounds of market testing of creative concepts, and ongoing tracking research of the impact of the campaign upon smokers.

The success of the National Tobacco Campaign is due to a strong Ministerial commitment, a coalition of government and non-government organisations, a powerful creative strategy grounded in theory and research, and the provision of 'on-the-ground' smoking cessation assistance through the national Quitline and local Quit organisations.

Some key initial issues for consideration for the development of a national 'River protection and restoration' behaviour change campaign include: problem definition (what are the problems/what are the solutions or actions required of the individual?); developmental research to understand the 'consumers' perspective and identify the approaches that would make the issue/s 'personally relevant'; market segmentation and audience analysis (to whom are you trying to communicate?, what immediate and tangible benefits are on offer to the individual who changes their behaviour?, what support would be provided to assist individuals undertake behaviour change?), and the development of a relevant campaign evaluation model.

Further Reading:

Australia's National Tobacco Campaign, Evaluation Report Volume One, Commonwealth Department of Health and Aged Care, 1998

Australia's National Tobacco Campaign, Evaluation Report Volume Two, Commonwealth Department of Health and Aged Care, 2000

These reports can be viewed at www.quitnow.info.au

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Planning for River Protection and Restoration - The Wallis Lake Experience.

Presenter: **John Chadban**
Mayor, Great Lakes Council

Great Lakes Council has become the local champion for the management of Wallis Lake and its catchment as a result of the need for leadership and action to address a Hepatitis A outbreak in 1997, and long term impacts of catchment land use on Wallis Lake. The Wallis Lake Catchment is an area of just over 1400 square kilometres and includes the urban areas of Forster and Tuncurry as well as dairying, beef cattle production, forestry and conservation in the wider catchment. The major industries of the area are tourism ($125 M/yr) and oyster farming ($10 m/yr). With the area having the second most productive estuarine fishery in NSW.

As a result of a crisis, the value and range of threats to this important natural resource was realised. Action was already underway, but the Hepatitis A outbreak added impetus to implementing new water management practices. Immediate action commenced including, septic tank survey, water monitoring program, audit of sewerage treatment plants, boat pump out facilities, the provision of amenities at lake foreshore picnic spots and expansion of reticulated sewerage system.

It was always evident that a more overall plan for the future was needed. So in 1997, funding from the Natural Heritage Trust was applied for, and eventually granted, to prepare an assessment of the Wallis Lake Catchment and develop the Wallis Lake Catchment Plan. The plan is a collaborative effort between two Councils, the Department of Land and Water Conservation and, most importantly, the community.

The preparation of the plan was on the basis that we all have a problem and unless we all do something about nutrient and sedimentation control and land use practices, the most wonderful resource we have will be compromised along with our future. The community embraced the process. The process of developing the catchment plan has involved:-

- Extensive community participation by way of direct engagement of all stakeholders to determine what is the significant issues and what are the solutions?
- Public forums throughout the catchment involving the wider community, particularly the rural community.
- Establishment of community reference groups so that we could report back and get feedback on the solutions which the catchment planner and steering committee had refined based on the results of the catchment assessment program.
- Engaging recognised experts rather than consultants to evaluate the current state of play and the required coarse of action. People who have helped include Dr Graham Harris, CSIRO, Dr Arnold Decker, CSIRO and Dr David Heggie, Geoscience Australia.
- Regular use of experts in delivering the message to the community via the local media.
- Regular updates on the catchment plan development and catchment condition through the newsletter "The Wallis" sent to over 500 identified stakeholders.
- Community participation in the catchment plan launch October 2001.
- The strategic aspects of the plan will be implemented through the planning instruments thus guiding future land use decision making.

As a Council we are tremendously aware of the need to focus on catchments and not just rivers. The need is to be holistic both in developing plans as well as on ground action. To focus on just the estuary is to turn your back on the problem. Catchment wide work is required rather than the present scatter gun approach to management.

Our approach though to our catchment management does have some constraints and these are:-

- More time consuming
- State agencies have struggled with meaningful community driven resource management. Relinquishing power and having a collaborative approach to setting the agenda take some getting used to.
- The community is moving faster than the bureaucracy is. Once the strategy or plan has support there is a great momentum to implement. Unfortunately Council's vision to secure funds to start the implementation process has not be given the necessary support at all levels. Council has raised a 4% special rate rise for environmental projects across the Council area with approximately $300 000 allocated over 2 years for projects in the Wallis Lake Catchment.
- By far the greatest amount of time and resources has been spent on trying to secure funding not actually coordinating on-ground improvements.

Benefits

- Attitudinal change is happening demonstrated through support for the special rate rise.
- Support for projects delivering improvements eg Council's Healthy Lakes Project
- Community ownership of the issue and solutions (this is more the case in the rural catchment, urban folk tend to believe more in the end of pipe solution.
- Involvement of independent scientific advisers has lifted the status of the issues above normal agency type programs. It has shown we have a serious problem on hand, the lake is more than half way along the process of decline, but we have an opportunity unlike many other coastal estuaries and rivers to secure a healthy lake for our future by taking action now.
- The Hep A crisis served as a wake up call not just for oyster issues but overall lake health. The wake up call has been straight forward, Act now or lose it.

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"How to succeed even when you fail: managing river health"

Presenter: **Ian Rutherfurd**
National Riparian Lands R&D Program

It would be difficult to design a resource that was more difficult to manage than rivers. They are essential to everybody, and to natural values, they are long and skinny, and affected incrementally by almost all activities in a catchment. Rivers are the 'devils own management resource'.

- Stream management projects can fail or succeed for numerous reasons. However, the most important reason for failure usually lies at the most basic level of having clear goals for the project.
- Nobody has ever made a management decision that did not seem justified at the time. Understanding the underlying motivations explains much of the 'success' or 'failure' that we see in river management. In this talk I will use examples to illustrate how river management is riddled with conflicting goals and motivations that make it difficult to assess project success.
    - Review of an NHT project illustrating how a narrow definition of 'community' leads to a poor outcome for the environment
    - Examples from South Africa and the USA show how political will is more important than the letter of legislation
    - Examples from Victoria show that many stream management projects are really about institutional survival in the shifting sands of political patronage. This leads to logical decisions that may not be in the best interests of rive health.
- Management of rivers is essentially about balancing private and public benefits. Over the decades these benefits have diverged.
- Management is about the interplay of goals and power. That is, what people and institutions want, and the capacity they have to achieve it. Power comes from resources, from clear goals, knowledge, conviction, from status, and from the law.
- Using the following examples I will argue that improving river health depends on clear goals held by public agencies, which are backed by confident predictions based on good science. These clear goals are then reflected in a clear set of powers.

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Forum 2002 Session 3

Land & Water Australia's Rivers Forum 2001
Session 3: Rivers and Rural Industries

Presenter: **Mike Logan**
Beef, Cereal & Cotton Producer/ Director Land & Water Australia

Rivers & Rural Industries

What do rural communities feel are the key water management issues facing Australia?

- Fear, fright and frustration are the emotions people are feeling. As water reform sweeps across the nation the feeling of uncertainty for rural businesses and their communities is very upsetting for many people.
- Communities feel that the social and economic impacts of water have been neglected.
- Industry feels the issue of property rights has been neglected, and the associated compensation for restructure is being completely ignored - despite statements from the Federal Government
- Industry feels the COAG agreements have not been met and the State governments are driving this process to gain only
  - Green preferences at the next election
  - Tranche payments from COAG
  - NHT (NHT 2), NAP funding
- The timetable driving reform is based on these tranche payments and not on good environmental, economic and social decision making
- Community feels that the water reform process does not include management, monitoring and measuring of environmental flows and their resultant costs and benefits to that community in potential new enterprise such as tourism
- Community members believe the community consultation has been corrupted by the participation of State representatives with pre-ordained agenda
- No one trusts the data and analysis done by, and held within the State bureaucracies

What information do rural industries need to know in order to make informed decisions on water management?

- Catchment wide approach to water reform is necessary so that we don't have to come back and do this all again in another five years. This will require;
  - Management plans and measurable targets for environmental improvement across the whole valley and water resource, and not just the allocated portions
  - Community participation in the implementation and monitoring of these resource wide management plans
  - Data. Transparent and available data that community members can learn to use and understand
- Impact studies that analyse the benefits and costs of water reform, environmental flows and ecosystem services
  - Studies to be done by independent people with transparent and agreed terms of reference
  - Including a decent amount of time to discuss the options and debate the alternatives
  - Compensation

How can effective communication between rural communities, R&D organisations, catchment management groups and government agencies occur?

- De-politicise the process and begin discussing the key environmental, social and economic issues
  - Revert the role of State agencies from participants to service, advise and resource
  - Address the timetable issue of COAG so that the correct outcomes are more important
- Install truly independent Chairmen to manage the debate and ensure the consultation is complete
- Change the incentive to the States for consultation failure
- The language used by agencies and researchers often baffles communities and industries. We need to spend some effort to explain some of these things.

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Midlands Bushweb Program

Presenter: **Lindsay & Biz Nicholson** Bonneys Plains

The Midlands Bushweb program is a large devolved project in the Northern Midlands of Tasmania. This project is designed to protect the vast natural values within the Macquarie / South Esk basin, an area of 12000 square kilometres. This area has intact continuous native vegetation, containing the greatest diversity of native plants in Tasmania, the highest number of threatened species and the greatest diversity of mammal species in Temperate Australia. Many of which are extinct or near extinct on mainland Australia. The project area boasts a remarkable range of grasslands / grassy woodland and dry forests. The native pastures are world renowned for the production high quality superfine wool.

The Bushweb district is in a transition phase, undergoing a shift from traditional livestock based enterprises, to broadscale cropping. The opium poppy and potato industries offer good returns and farmers are investing heavily in pivot irrigation systems and on-farm water storage. Groups are being formed to secure major water supplies for the irrigation of crops. The Macquarie / South Esk basin is a high salinity risk area. The water leaving the Northern Midlands has a salinity content higher than that at Murray Bridge in South Australia.

The challenge for this community, like many communities throughout Australia is to produce an income for farmers without putting at risk the high nature conservation values or the productive base of the region. To ensure the survival of our rural communities, nature conservation and the resource base, an innovative solution is required.

Bonneys Plains is a 2300 hectare grazing property in the Northern Midlands district. The property is situated in a 500mm rainfall, pastoral zone. Buffalo Brook flows from the foothills of the Ben Lomond range, through the property, to the South Esk River. It is the major source of water for Bonneys Plains. Buffalo Brook changed course to its present position during a major flooding event in 1929. The highly erodable black cracking clays has ensured ongoing active erosion, contributing to poor water quality and continual soil loss.

Fencing Buffalo Brook was commenced in1986 and is now a stable watercourse revegetated by the oldest and most reliable cost-effective direct seeding method known. This stream now boasts a large range of native plants, birds and fauna. Buffalo Brook is still the main water supply for the property but alternative ways of using stream water have been introduced. Bonneys Plains has decreased livestock production, ceased cash cropping, increased its conservation area, increased employment, all made possible through the development of a native plant based business.

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New Approaches to Catchment Management

Presenter: **Ian Rogan**
Hassall & Associates

Catchment Management Boards in NSW have just been through an intense catchment planning process, which has set targets for river system health.

The Planning process

- Was a joint community/government exercise
- Reviewed available data on current status and trends in natural resources of the catchment (patchy!)
- It was difficult to achieve consensus commitment to targets and actions, but very empowering and satisfying when achieved
- Commitment of the community to NRM targets required acceptance of qualifications about level of resources available and uncertainty of baseline data

The Challenges Now

- To begin implementing widespread changes in land management in the catchment
- These changes will contribute to targets for soils and land-use, salinity, water quality, vegetation and biodiversity as well as social and economic features of the catchment
- River system health is clearly not just a water issue

How do we bring about change?

i. Awareness and knowledge - about current status trends and implications of trends in NRM parameters for both ecology and the economy of the region. This knowledge helps landholders answer two key questions for themselves:
   - How will these trends affect me and my assets?
   - How will these trends affect others in my region and other things I care about? (eg. The health of the Macquarie Marshes).

ii. Options for land management changes are available - from research, demonstration and good communication.
iii. The Costs and benefits of those options are known.
iv. There is general agreement about fair and equitable sharing of costs.
v. Money is available to implement changes.

How do we raise the money required?

i. Local investment
Getting strong local commitment to invest in NRM has a number of benefits:
   - it increases commitment to achieving outcomes
   - it helps attract "outside" investment

Already landholders are willing to commit lots of time, their equipment and some cash. The wider regional community is surely also willing to invest. A $50 household NRM levy in our catchment could raise $20-$30 million per year. Will the local, state and/or federal governments have the political guts to implement and NRM levy? It's politically saleable now!

ii. "Outside" Investment
We would aim to lever a matching $20- $30 million per year from State and Federal Government programs such as the State Salinity Strategy, NHT and the National Action Plan for Salinity and Water Quality.

We believe there is great potential to attract investment from corporations such as banks and mining companies who have a vested interest in asset values in the catchment and perhaps an altruistic objective as well. Some of these corporations and industry organisations may also be participants in offset and credit schemes (carbon, salinity, and biodiversity).

Overall, an investment from the corporate sector of $5 million per year should be achievable. So an overall investment of $60 to $70 million cash plus in-kind efforts, should make a real difference in NRM in our Catchment.

What are the right structures for delivery and managing NRM?

i. Landcare groups - yes, will continue to have an important role but not all landholders are members and the professionalism and administrative capability of many groups is limited.
ii. State Government agencies - yes, but we need to ensure that the whole community is engaged. This is often difficult for agencies and there is some mistrust and concerns about "cost shifting".
iii. Industry organisations - yes, but not all landholders are members, let alone non-rural community members.
iv. Local government - yes, but many are small and lack the financial and people resources to commit strongly to NRM.

The solution?
A true partnership between all of these organisations at a regional level, overseen by a community neutral resource management board.

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Forum 2002 Session 4

Land & Water Australia's Rivers Forum 2001
Session 4: Promoting and Communicating Your Message

Presenter: **Mr Tim Shaw**
Best Direct - Communications and Strategy

Promoting and communicating your message. But wait ... there's more!

Tim will discuss some of the following questions about effective promotion and communication of messages. Questions like:

Q. How do you sell something to people when they don't know they need it?
A: Education. Whatever the product, it is clearly defined educative messages that get the attention of the consumer. Identify whom your target market and constituency is and create a need and want in the minds of this constituency. Evoke images and experiences of the past that they assume will be there for eternity then educate, promote, perform and protect the assett for the future.

Q: What techniques can you use?
A: Determine who the stakeholders are and what their expectations for the future use of the assett are. Apply a 'whole of community based activism' approach to articulating the current concerns and the opportunities for recognition and appropriate use of the river system in your region for the future. Also cleverly 'leverage existing organisations, their infrastructure and their budgets'. Especially local media.

Q: How do other industries promote themselves?
A: Tim will discuss examples of other river and tourism assets where recognition of sustainability is combined with the appropriate use for commercial and non-commercial uses.

Q: What are examples of successful campaigns using direct marketing techniques including media, music art and poetry?
A: Tim will discuss community based involvement and the importance of a direct public relations communication strategy used by the long running Clean up Australia campaign team. He will also discuss the parallel use of the 'It's a living thing' - New South Wales Government - a broad based media campaign widely and directly targeted at communication of the self-evident statement - it's a living thing, but scaled to work at a local level in local communities with local constituencies.

Q: What are the steps we need to take to make a difference in our community?
A: Tim will lead you through the establishment of your own local working group that is representative of your entire community. Traditional owners, land users, community and historical groups and societies, media, local government representatives, state and federal members, local and international organisations specialist in contemporary conservation issues, associated agencies and authorities that have resources and knowledge you don't have.

Contact Details:
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Celebrating the Wetlands: Environment Events as Promotion

Presenter: **Mr Bill O'Toole**
Event Project Management System Pty Ltd

Celebration events that encompass and are surrounded by a natural environment can work as a long-term promotion of the region

The event can encompass the environment by creating a composition, video, painting, poem or any other 'cultural product' that has a life beyond the region and the event itself.

The cultural product will give a deep and long lasting value to the area.

In almost all cultures, the natural environment - such as a river, forest, wetlands - is used a source of inspiration for artists.

Often the short lived promotion campaign will not work to the advantage of the environment. What may be needed is a strategic promotion - one that creates cultural value. This may be long term and gradual.

The driving force behind such a campaign is the deeply held beliefs of the participants and the pride in the campaign itself.

The Qualities of an Environment Event:

1. It must be seen as long-term project
2. The event needs to be focussed
3. It is a celebration
4. International perspective
5. Professionally organised
6. Produces a cultural product beyond the event

How this worked in the Marshes

1. The concert in the Marshes was used to draw together interested parties - often with conflicting interests
2. It was broadcast live on the night to Asia and the pacific
3. It produced a composition, a CD, a video and a TV program
4. The TV program has been shown though out Europe and in the USA
5. The Macquarie Marshes are now managed by some of the people involved in the event.

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Forum 2002 Day 2

Land & Water Australia's Rivers Forum
Researchers on a Riverbank

Presenter: **Prof Peter Davies/ Prof Stuart Bunn**
National Riparian Lands R&D Program

Ecological Processes in the Riparian Zone

Key topics of discussion in this presentation and in discussions on the 'riverbank' will be:

Direct influence of riparian vegetation on ecosystem processes and stream health

1. Riparian influences over the composition and production of aquatic plants.
2. The relative importance of shade vs nutrients.
3. Stream temperature regimes - aquatic biodiversity and ecological processes.
4. Relative importance of riparian versus aquatic sources of food.
5. Restoring riparian zones to control nuisance aquatic plants and moderate stream temperature regimes.

Role of large woody debris

1. Debris dams and their role in nutrient flux.
2. Large woody debris as aquatic habitat.

Riparian zones as habitat for aquatic and semi-aquatic organisms

1. Requirements of terrestrial phases of the life cycle of aquatic organisms.
2. Fragmentation of riparian habitat as a barrier to restoration.
3. Contribution of aquatic production into terrestrial food webs.

Research priorities (in-stream ecological issues) of Phase II of the riparian program

1. Predicting the effect of riparian shading on local and downstream stream temperature regimes. Improved understanding of the ecological and biodiversity consequences of thermal extremes.
2. Improved capacity to articulate key ecological processes in riparian zones and the consequences of riparian degradation to stakeholders (ecological models).
3. Improved guidelines for the restoration of stream habitats using large woody debris, and for monitoring success in an ecological context. Knowledge of mechanisms (and limitations) of how aquatic biota re-colonises restored areas.
4. Improved understanding of the potential and limitations of riparian restoration in large rivers (models of large rivers).

On the river bank (key points):

1. Influence of riparian vegetation on shade and detrital inputs.
2. River orientation influences channel shading.
3. Growth of nuisance plants.
4. Large woody debris as habitat.
5. Riparian zones as terrestrial habitat.
6. Limitations to the success of riparian restoration (modified flow, degraded water quality, lack of habitat etc).

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Centre for Catchment & In-stream resaerch
Griffith University
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Livestock management in riparian habitats and assessment of riparian management

Presenter: **Prof Alistar Robertson/ Dr Amy Jansen**
National Riparian Lands R&D Program

This presentation covers the impacts that cattle and sheep have on the structural (ie vegetation communities, habitat values) and functional (plant recruitment, animal community change, rates of organic matter turnover) elements of riparian habitats. Research is currently being conducted in the south-west slopes of NSW, the riverine plains of NSW and Victoria, the Gippsland dairy region and the dryland rivers of the tropical north of Australia, to investigate best practice management of livestock herds. The discussion on the 'Riverbank' will outline some of the key findings to date and discuss some of the recommendations being developed to conserve riparian habitat in the context of viable land management. In addition, some of the methods that can be used by agencies, community groups and individuals to assess the response of riparian habitats to management actions will be outlined.

Some of the key topics to be covered in discussions on the 'Riverbank' will be:

- How livestock can cause severe damage to riparian habitats.
- How you can run viable agricultural enterprises and have stock use riparian areas, if appropriate management is employed.
- Why private landholders don't necessarily follow best practice.
- How long does it take to rehabilitate riparian areas through fencing initiatives.
- Complex interactions between livestock management, flooding and ecological processes in riparian habitats.
- Appraisal methods for assessing the ecological conditions of wetlands and riparian habitats.

Further Reading

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Dr Amy Jansen
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Introduction to geomorphology and sediment and nutrient transport aspects of river restoration.

Presenter: Dr Ian Prosser
National Riparian Lands R&D Program

The discussion on the 'riverbank' will cover the following key points:

1. The current extent of eroded land and degraded rivers is beyond the restoration possible with current resources. Therefore, there needs in river restoration to be a strong element of protecting the assets that remain, then repairing the slightly modified, before tackling the most difficult problems.
2. Restoration for water quality should focus on the sources that directly influence the outcomes. For example, much of the interest in water quality is in the lower reaches of rivers, where algal blooms occur. This is far from the sources of sediment and nutrient, and most of those sources do not contribute to the downstream problems. Treating the direct sources leads to more effective catchment management.
3. Erosion of gullies and stream banks leads to massive deposits of sand and gravel that drown the stream habitats required for native fish. Erosion prevention and habitat restoration can repair this damage.
4. Erosion of riverbanks and gullies and, importantly, not just farmed land are where sediment and phosphorus comes from in many catchments.
5. On croplands, riparian filter strips can be used as a last line of defence against erosion, in addition to good on farm management.
6. Riparian ground cover can effectively prevent gully erosion and riverbank scour.

7. Riparian trees can effectively stabilize stream banks from slumping in all but the most severe circumstances.

Further Reading:

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Revegetation Techniques, Weed Control and Riparian Species Selection Based on the 'Bidgee Banks' Project

Presenter: **Ms Lori Gould**
Greening
Australia

Bidgee Banks is a large-scale riparian project, managed by Greening Australia ACT, in partnership with the NSW Dept. of Land and Water Conservation, funded through Natural Heritage Trust. It aims to reduce sedimentation (and nutrification) of the Murrumbidgee River by targeting erosion of tributaries, and protecting and enhancing remnant riparian vegetation in the mid and upper Murrumbidgee catchments. Over the last 2 years, the Bidgee Banks project has funded over 220 landholders to undertake rehabilitation works along over 230km of rivers, creeks and gullies. A large proportion of the funding has gone to revegetation of riparian areas. There are many guidelines available from various agencies to assist with undertaking revegetation work, that have been used extensively as part of the project. The following guidelines have been formed through a combination of these, and on-ground experience.

- **Every site is different.** Despite similarities, each site has its own specific requirements. Before undertaking revegetation work, it is important to look around the site and make a note of the existing vegetation. Note the soil type, plant species, and distance of vegetation types from the channel. This will give a guide to the species selection and design of revegetation at the site.
- **Only revegetate if necessary.** In some areas, remnant vegetation is abundant and diverse, and will regenerate naturally. The management of threatening processes such as heavy grazing, weeds, willows, and erosion, should be a priority so degradation is prevented or intercepted. Remnants can be enhanced by adding vegetation structure such as understorey. Grasslands, however, have low structural diversity, and are generally not suited to this type of revegetation. River flows are dynamic, and revegetation should be undertaken with this in mind.
- Select Locally Native Species. Locally native species are adapted to the local climate and have a better chance of survival. Exotic riparian vegetation does not have the same habitat value as native vegetation, and can become invasive such as many willow species. Select a mixture of native trees, shrubs, grasses, and aquatics to ensure structural and biological diversity.
- **Appropriate Site Preparation.** Site preparation mostly refers to spraying and contour ripping in preparation for planting or seeding. Sites with native pastures, are less competative and, therefore, generally do not require intensive site preparation and are ecologically desirable. Other sites that are potentially unstable and should not be ripped are floodzone areas with dispersible soils. The combinations of site preparation techniques depend on the nature of the site and should be chosen accordingly.
- **Select Appropriate Revegetation Techniques.** The most common techniques include tubestock planting and direct seeding. Direct seeding can be undertaken using a machine or by hand. Tubestock comes in a range of sizes such as forestry tubes, which are commonly used for trees and shrubs. A denser population grasses and aquatic plants are often required, and these are available in small viro cells as well as 1m long flawra ej's. Long stem tube stock can also be considered for soil stabilisation works. There are seedling planter machines, and tools such as Hamilton tree planters to assist with planting, however, most riparian revegetation requires hand planting due to the diverse surfaces being planted.
- **Protection From Stock.** Stock need to be excluded from revegetated sites, until plants are big enough to withstand grazing pressure. Bidgee Banks has a management agreement with landholders excluding stock from revegetation areas for 10 years, with a clause allowing for limited crash grazing for weed control and fire management. Any future grazing program should be undertaken conservatively in these areas.
- **Weed control and maintenance.** When stock pressure is removed, weeds and willows can become a problem. It is essential to be aware of this from the outset so that problems do not escalate. Through Bidgee Banks we are finding that landowners who actively continue to manage their weeds, tend not to find this process a burden. The key to management is knowing what to expect and what to do about it before revegetation takes place. Only chemicals registered for aquatic use eg Glyphosate, should be employed in riparian areas.

For further information, (and site specific advice in the upper and mid Murrumbidgee Catchments), contact Greening Australia ACT & SE NSW on (02) 6253 3035. For other areas contact your local Greening Australia office.

Contact Details:
Ms Lori Gould
Greening Australia ACT & SE NSW
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Land & Water Australia's

Rivers Forum 2002

20–21 March 2002, Canberra

Tired of going to the same old conferences and workshops? Want to be challenged to think differently, hear new ideas and consider options for managing our rivers for future generations? Want to hear how marketing experts would take on the challenge of engaging communities to better manage Australia's rivers? Want to experience research on a real riverbank rather than just hearing about it?

Then Land & Water Australia's Rivers Forum is for you!

When and where

The Rivers Forum will be hosted over two days.
Wednesday 20 March — Rivers Forum, Old Parliament House, Canberra.
Thursday 21 March — Researchers on a Riverbank, Yass NSW. Buses will be provided from Canberra.

Fees GST INCLUSIVE

Fee includes morning and afternoon tea, lunch.

Day 1 — Rivers Forum	$60.00
Day 2 — Researchers on a Riverbank	$50.00
Both Day 1 and Day 2	$100.00

See over for registration details

Rivers Forum — Wednesday 20 March

The first day of the forum will promote debate, stimulate ideas and provide insights about river management from people outside and within our 'rivers industry'. There will be four themes:

- Protecting our rivers
- Planning for river protection and restoration
- Rivers and rural industries; and
- Promoting and communicating our message.

We have a mix of people to provide us with a range of perspectives about river management in Australia:

- river management specialists — **Professor Peter Cullen**, **Dr Richard Kingsford** and **Dr Ian Rutherfurd**
- rural industry experts — **Mike Logan** (cotton, cereal and beef producer), **Ian Rogan** (Catchment Board Chair, Rural Advisor) and **Lindsay and Biz Nicholson** (farmers, Bonneys Plains, Tas.)
- community leaders — **Eric Bell** (Ngunnawal Elder), **John Chadban** (Mayor, Great Lakes Council).
- marketing and communication gurus — **Tim Shaw** (Best Direct – Communications and Strategy), **Alan Pinsker** (National Tobacco Campaign), **Bill O'Toole** and his band Sirocco.

But wait… there's more!

Reseachers on a Riverbank — Thursday 21 March

The second day of the Forum has researchers funded through Land & Water Australia's Rivers Arena talking about different aspects of river and land management. Participants will select which topics they want to be involved in and will move between the researcher groups who will be stationed along the riverbank (rather like a round robin). Getting access to science in-the-field is what this day is all about.

Some of the researchers that will be on the riverbank are: **Dr Ian Prosser** (geomorphologist), **Prof Stuart Bunn** (ecologist), **Prof Peter Davies** (ecologist), **Dr Ian Rutherfurd** (geomorphologist), **Prof Alistar Robertson** (ecologist and stock management), **Dr Amy Jansen** (ecologist) and **Ms Lori Gould** (revegetation and community participation).

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For further information

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Land & Water Australia's

Rivers Forum 2002

20–21 March 2002, Canberra

REGISTRATION FORM

Name .....
TITLE GIVEN SURNAME

Preferred name for name badge .....

Organisation .....

Postal address .....

Suburb ..... State ..... Postcode .....

Telephone (BH) ..... Fax .....

Email .....

Special requirements (e.g. Dietary/Physical) .....

I would like to attend (please tick appropriate)

Rivers Forum — Wednesday 20 March ☐

Researchers on a Riverbank — Thursday 21 March ☐

Will you need a bus to and from Yass? ☐

If attending Researchers on a Riverbank, please indicate which sessions you would like to attend by placing a tick against three topic areas.

Topic	Select three
Streambank stabilisation, erosion control, sediment runoff, planning for river management	
In-stream ecology; how to restore riparian zones to improve river health, river and land connectivity, food chains	
Stock and weed management, social dimensions of river management. How to get the most from demonstration sites	
Revegetation techniques, weed control and riparian species selection. On-ground work techniques based on a Bidgee Banks project	

FEES

GST INCLUSIVE. REGISTRATION FEE INCLUDES MORNING AND AFTERNOON TEA, LUNCH.

Day 1 — Rivers Forum, Old Parliament House	$60.00	$ .....
Day 2 — Researchers on a Riverbank	$50.00	$ .....
Both Day 1 and Day 2	$100.00	$ .....

PAYMENT DETAILS

Payment can be made by cheque or credit card. We do not accept AMEX or Diners Club. Please make cheque payable to Land & Water Australia and send to the address at right.

Credit card (please tick) Mastercard ☐ Visa ☐ Bankcard ☐

Name on card .....

Credit card number ..... /..... /..... /..... Expiry date ..... /.....

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A letter, including tax invoice receipt will be sent confirming your registration.

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Land & Water Australia's

Rivers Forum 2002

20–21 March 2002, Canberra

Tired of going to the same old conferences and workshops? Want to be challenged to think differently, hear new ideas and consider options for managing our rivers for future generations? Want to hear how marketing experts would take on the challenge of engaging communities to better manage Australia's rivers? Want to experience research on a real riverbank rather than just hearing about it? Then …

Land & Water Australia's Rivers Forum is for you!

Land & Water Australia's Rivers Forum will provide people with access to ideas and research in different ways, from different perspectives and in different formats. River management in Australia has made considerable progress over the last decade, but it is now time for us to develop our ideas further. We need to open our minds and learn from those working in other areas so that we can build capacity within ourselves, and the organisations and communities within which we work, to take on new ideas and build on our progress to date.

The Rivers Forum will be held over one and a half days, with a mix of presentations, interactive sessions and field experience.

Rivers Forum — Wednesday 20 March, Old Parliament House, Canberra

The first day of the forum will promote debate, stimulate ideas and provide insights about river management from people outside and within our 'rivers industry'. The Forum will focus on four themes:

- **Protecting our rivers**;
- **Planning for river protection and restoration**;
- **Rivers and rural industries**; and,
- **Promoting and communicating our message**.

Land & Water Australia has identified these themes as the key areas to focus on over the next five years to bring about further change in river management. Insightful and entertaining speakers will cover these topics, with their brief being to promote debate and discussion, and challenge the status quo.

Researchers on a Riverbank — Thursday 21 March, Yass region, NSW

Researchers on a Riverbank will have researchers funded through Land & Water Australia talking about aspects of river and land management. Participants will select three topic areas and move between the researcher groups who will be stationed along the riverbank (rather like a round robin). Information and further resources to support the discussions participants have with the researchers will also be provided. Direct access to researchers is what this half-day session is all about, and it will be finished off with a terrific BBQ lunch.

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But wait… there's more!

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PROGRAM CORRECT AT TIME OF PUBLICATION

Rivers Program

Wednesday 20 March — Rivers Forum, Old Parliament House, Canberra

9.00am

Welcome
Bobbie Brazil, Chair, Land & Water Australia

Welcome to Country
Matilda House, Ngunnawal Elder

The Forum will be facilitated by **Michael Williams**

SESSION 1

9.20 – 10.45am

Protecting our rivers
Which rivers in Australia need protection and why? How do people value their rivers? What mechanisms can we use to protect rivers? What has worked overseas? How can we engage the wider community to think about river protection and why is this important? Speakers in this session will include **Eric Bell** (Ngunnawal Elder), **Professor Peter Cullen** (CRC for Freshwater Ecology) and **Dr Richard Kingsford** (National Parks & Wildlife Service).

10.45 – 11.15am — **Morning tea**

SESSION 2

11.15am – 12.45pm

Planning for river protection and restoration
Public awareness, and good environmental protection and restoration techniques are all critical aspects of good environmental policy, but how do you go about achieving the two? What planning tools are currently available in the river's industry and what can the river's industry learn from other sectors of the community about how to raise public awareness? Speakers are **Alan Pinsker** (National Tobacco Campaign), **John Chadban** (Mayor, Great Lakes Council) and **Dr Ian Rutherfurd** (University of Melbourne).

12.45 – 1.45pm — **Lunch**

SESSION 3

THIS SESSION SUPPORTED BY LAND, WATER AND WOOL

1.45 – 3.00pm

Rivers and rural industries
What do rural communities feel are the key water management issues facing Australia? What information do rural industries need to know in order to make informed decisions and water management? What are the natural resource issues from their perspective and how can effective communication between rural communities and R&D organisations/catchment management groups and government agencies occur? Speakers are **Mike Logan** (cotton, cereal and beef producer), **Ian Rogan** (Catchment Board Chair and Rural Advisor) and **Lindsay and Biz Nicholson** (farmers, Bonneys Plains, Tasmania).

3.00 – 3.30pm — **Afternoon tea**

SESSION 4

3.30 – 5.00pm

Promoting and communicating your message. But wait… there's more!
How do you sell something to people when they don't know they need it? What techniques can you use? In this session we will learn how other industries promote themselves and get some ideas on how the river's industry can do the same. We will learn from examples of successful campaigns that have used direct marketing techniques, music, art and poetry as essential communication tools Speakers include **Tim Shaw** (Best Direct — Communications and Strategy) and **Bill O'Toole** (Sirocco).

5.00 – 6.30pm — **Evening drinks with music by Sirocco**

FOR SPEAKERS PROFILES
SEE NEXT PAGE

Together...
we can restore, protect and enhance our river landscapes for present and future generations.

Thursday 21 March — Researchers on a Riverbank, Yass region, NSW

The day will be focused on the science underpinning recommended practices to deal with a range of river management issues. Participants can select three topics from the four offered including sediment control, stock management, in-stream health, demonstration sites/knowledge exchange and vegetation management. They will be able to discuss with researchers working in these topic areas how to translate the science into practice.

8.00am — **Buses departs for Yass from Canberra**

9.30 – 10.15am — **Introduction and group discussion**

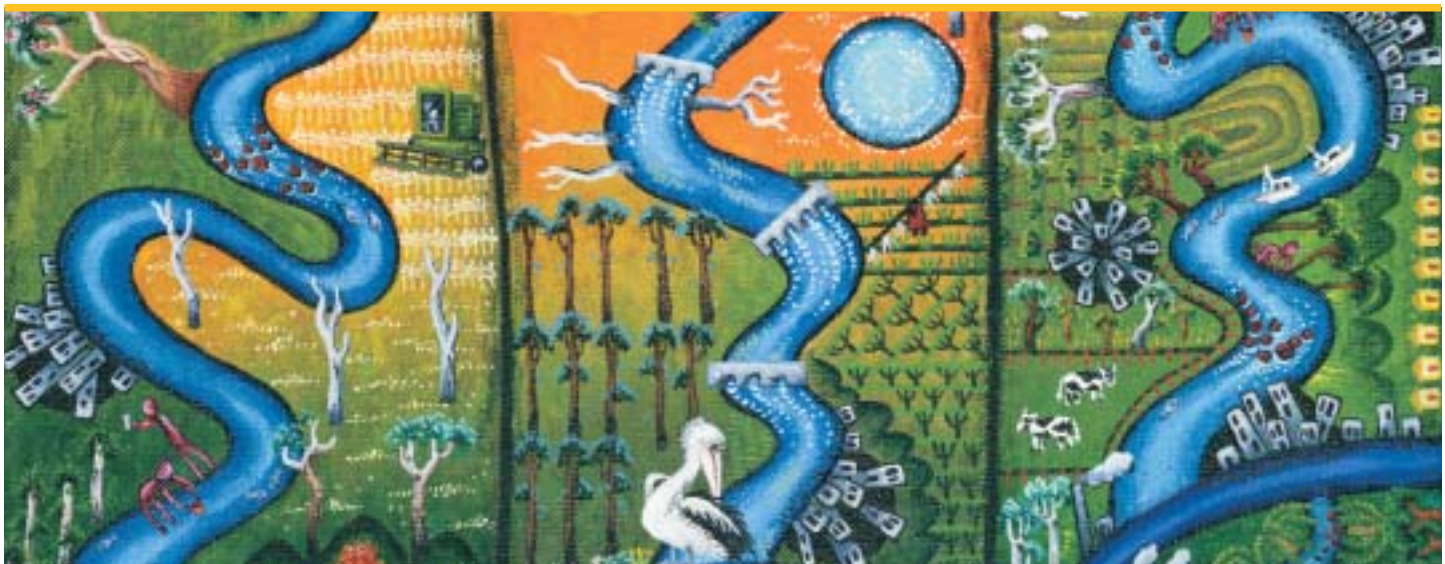
An introductory seminar on river management techniques and how to practically apply science to river management issues will lead the group into specific topic areas.

10.15am – 1.00pm — Three rotations will take place between 10.15am and 1.00pm, with participants choosing which topic sessions they would like to attend.

Topic	**Researchers**
Streambank stabilisation, erosion control, sediment runoff, planning for river management	**Dr Ian Prosser** (CSIRO Land & Water) **Dr Ian Rutherfurd** (University of Melbourne)
In-stream ecology; how to restore riparian zones to improve river health, river and land connectivity, food chains	**Professor Stuart Bunn** (Griffith University) **Professor Peter Davies** (University of Western Australia)
Stock and weed management, social dimensions of river management. How to get the most from demonstration sites	**Professor Alistar Robertson** (Charles Sturt University) **Dr Amy Jansen** (Charles Sturt University)
Revegetation techniques, weed control and riparian species selection. On-ground work techniques based on a Bidgee Banks project	**Ms Lori Gould** (Greening Australia)

1.00pm — **BBQ lunch and open question time**

2.30pm — **Buses departs for Canberra (and airport)**



Land & Water Australia's

Rivers Forum 2002

20–21 March 2002, Canberra

SPEAKERS PROFILES

Tim Shaw is Australia's best contemporary salesman. He's a real *'Best Seller'*. Through his many television appearances, particularly as the presenter on those infamous Demtel commercials, Tim has become a national household name. His credibility and effectiveness has enabled him to sell more than $100 million of product — branding him Australia's most effective sales presenter and communicator. Is there anyone who doesn't know who Tim Shaw is? He has permanently altered the Australian vernacular. This is not disputed — "But Wait… There's More!"

Alan Pinsker — National Tobacco Campaign — 'every cigarette is doing you damage'. Alan works in the Population Health Social Marketing Unit, Commonwealth Department of Health and Ageing, which manages a range of social marketing/public health campaigns including the National Youth Alcohol Campaign, the National Illicit Drugs Campaign, and Breastscreen Australia. He has previously been a campaign manager for the National Illicit Drugs Campaign, marketing manager for the Job Network, and worked in a range of communication/policy areas across government including the Department of the Prime Minister and Cabinet. His favourite waterway is Sisters Creek, Sisters Beach, Tasmania.

Professor Peter Cullen is Chief Executive of the CRC for Freshwater Ecology. He has over 30 years experience in land and water management. He has carried out research in nutrient dynamics and lake eutrophication. He has also been influential in communicating science to managers and in using science to develop appropriate policy options for land and water management. He is a Fellow of the Australian Academy of Technological Science and Engineering and a member of the International Water Academy.

Bill O'Toole currently teaches at the University of Sydney and University of Technology, Sydney in event and project management. He has over 20 years experience creating and organising events in Australia and Asia. His particular interest is in creating events that profile unique aspects of the Australian natural environment such as the Macquarie Marshes. With Sirocco, Bill has put on music events in limestone caves, rainforests, wetlands, beaches, not to mention Central Borneo with the Dayaks.

Sirocco are a group of composers and music performers with a love for the distinct Australian environment and history. They have over 12 albums released including the Evergreen Realm composed for the opening of the Sydney Botanic Gardens rainforest exhibition and the Wetland Suite video made with the Murray Darling Commission's film footage of various Australian wetlands.

Mike Logan is a cotton, cereal and beef producer from Narrabri, NSW. He has a Bachelor of Business degree from Kuringai CAE, is a Fellow of the Australian Institute of Company Directors and is an accredited ISO 14000 auditor. He has been instrumental in introducing an Environmental Best Management Practice program into the cotton industry and is probably the first commercial farmer in Australia, and perhaps the world, to achieve ISO 14001 accreditation of the Environmental Management System for his farm.

John Chadban is a qualified Health and Building Surveyor with over 35 years experience in the Health, Building, Environment and Waste Management fields. For the last six years John has been an elected member of Great Lakes Council and currently holds the position of Mayor.

Ian Rogan has lived and worked on the central west plains of NSW for 23 years since graduating from the University of New England. He has held senior research positions at Trangie Research Centre and for the past nine years has been Senior Consultant and Director of the consulting and accounting firm, Hassall & Associates. He has worked extensively for the sheep and irrigated cropping industries and is actively involved in Landcare and catchment planning.

Eric Bell grew up in Hollywood, an Aboriginal reserve outside Yass (NSW), until it closed in 1955. Eric currently works for the Ngunnawal Community Care, a Program that looks after aged and young disabled aboriginal people.

Lindsay and Biz Nicholson own and operate, with their daughter, a 2300 hectare property "Bonneys Plains", in Tasmania's Fingal Valley. The agricultural operation is primarily a fine wool growing enterprise, with merinos run on both native and introduced pastures, in a 500 millimetre rainfall zone. A nursery, specialising in native plants from the drier grazing region of the state, forms the basis of a revegetation business, which is operated from the property.

Dr Richard Kingsford is a Principal Research Scientist with NSW National Parks and Wildlife Service. His research over the last 15 years has focussed on the waterbirds, wetlands and rivers of arid Australia, which cover about 70% of the continent. This research has been based on the wetlands of Cooper Creek, one of the world's most magnificent arid zone rivers, and the Paroo River, the last free-flowing river in the Murray-Darling Basin.

Dr Ian Rutherfurd lectures at the University of Melbourne, as well as working as a Project Leader with the CRC for Catchment Hydrology. Ian has considerable experience in developing manuals and guidelines for river managers, and led the team that developed the widely used 'A Rehabilitation Manual for Australian Streams'. He is a skilled workshop and conference presenter, and enjoys working with people to achieve better river management in Australia.

Professor Alistar Robertson has researched ecological processes in rivers, wetlands and coastal habitats for 25 years. He comes from a farming background and is interested in the balance between conservation and production in agricultural landscapes. He is Director of the Johnstone Centre for Research in Natural Resources and Society at Charles Sturt University.

Professor Peter Davies investigates ecological processes in rivers and streams, with particular expertise in translating science so that it can be used by river managers. He is currently Director of the Centre of Excellence in Natural Resource Management at the University of Western Australia Campus in Albany.

Professor Stuart Bunn is the Director of the Centre for Catchment and In-Stream Research at Griffith University. Stuart's research is largely focused on ecosystem processes in rivers and wetlands, with a particular emphasis on the linkages with riparian/floodplain systems. Stuart is currently Deputy Chair of the Scientific Expert Panel for the Southeast Queensland Regional Water Quality Strategy, a member of the Lake Eyre Basin Scientific Advisory Panel, and a member of the Scientific Committee for Water Research for the International Council of Science.

Dr Ian Prosser is a Principal Research Scientist at CSIRO and is experienced in research on riparian processes, erosion and sediment transport, and river geomorphology. Ian has recently completed projects with the National Land & Water Resources Audit, as well as working on the development of guidelines and tools to assist river managers.

Dr Amy Jansen has expertise in bird behavioural ecology, and has worked with different government agencies providing advice on fauna protection. Since 1997, she has been a Research Fellow with the Johnstone Centre at Charles Sturt University where she has been investigating the responses of different components of riparian biodiversity to disturbance by domestic livestock.

Lori Gould has over seven years experience in natural resource management with a focus on riparian lands. Lori currently works for Greening Australia managing a large-scale river rehabilitation project that operates across the upper and mid Murrumbidgee Catchments in NSW.

Land & Water Australia's

Rivers Forum 2002

20–21 March 2002, Canberra

REGISTRATION FORM

Land & Water Australia
research · development · innovation

Name .....
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Preferred name for name badge .....

Organisation .....

Postal address .....

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Email .....

Special requirements (e.g. Dietary/Physical) .....

I would like to attend (please tick appropriate)

Rivers Forum — Wednesday 20 March ☐

Researchers on a Riverbank — Thursday 21 March ☐

Will you need a bus to and from Yass? ☐

If attending Researchers on a Riverbank, please indicate which sessions you would like to attend by placing a tick against three topic areas.

Topic	Select three
Streambank stabilisation, erosion control, sediment runoff, planning for river management	
In-stream ecology; how to restore riparian zones to improve river health, river and land connectivity, food chains	
Stock and weed management, social dimensions of river management. How to get the most from demonstration sites	
Revegetation techniques, weed control and riparian species selection. On-ground work techniques based on a Bidgee Banks project	

FEES

GST INCLUSIVE. REGISTRATION FEE INCLUDES MORNING AND AFTERNOON TEA, LUNCH.

Day 1 — Rivers Forum, Old Parliament House	$60.00	$ .....
Day 2 — Researchers on a Riverbank	$50.00	$ .....
Both Day 1 and Day 2	$100.00	$ .....

PAYMENT DETAILS

Payment can be made by cheque or credit card. We do not accept AMEX or Diners Club. Please make cheque payable to Land & Water Australia and send to the address at right.

Credit card (please tick) Mastercard ☐ Visa ☐ Bankcard ☐

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