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# Turning the Tide: How Does Science Change Public Policy?

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## Introduction

Australia needs to have a vigorous public discourse as to how we manage our land and water, and scientists and academics funded from the public purse have an obligation to contribute to this discourse. All Australians must become more water literate and to understand the impact they have on our water resources. In this address I want to describe the work of the Wentworth Group, discuss the impacts of our contributions and to respond to some of the commentaries we have been subjected to.

The Wentworth Group of Concerned Scientists was formed at the Wentworth Hotel in Sydney on Thursday 10<sup>th</sup> October 2002. We had been invited by the World Wide Fund for Nature to gather to discuss some of the amazing things being given prominence by radio commentators during the drought. There were 11 of us - Leith Bouilly, Peter Cosier, Peter Cullen, Tim Flannery, Ronnie Harding, Steve Morton, Hugh Possingham, Denis Saunders, Bruce Thom, John Williams and Mike Young.

Australia was in the grip of a major drought that was focusing the attention of rural and urban Australians alike. Irrigation districts had very limited water, and there were restrictions on water use in most of our major cities. Concerns with the way we manage water had been building over the previous five years with extensive press coverage of the degradation of the health of our major rivers and the squabbles between Governments and the various interest groups as to who was to blame, what should be done and who should pay. Media coverage had raised the issue in the minds of politicians who were starting to understand they had to do something, but were unclear as to what should be done.

It was in this context that radio commentator Alan Jones started a campaign to turn the rivers inland and stop wasting the water that was flowing to the sea. He advocated a variety of massive engineering projects; including piping water from the Ord to Adelaide and then on to the Murray-Darling Basin, as well as turning back the coastal rivers.

The underlying assumption that we could tame this country through engineering works was not one we could accept. Our society had just gone through a debate that resulted in Governments committing significant resources to return at least some water to the Snowy

River, and here were proposals for further massive works that could repeat these mistakes.

As a group of experienced natural resource professional scientists, we were of the view that Australians needed to learn to live with the variability of our continent rather than trying to ignore these realities.

### **The First Wentworth Dinner**

The WWF invited us to a meeting starting at around 5.00pm to discuss these issues and to develop some counter arguments. A spirited discussion took place, and there was broad agreement about the main points, although as might be expected, there were many differing views on the emphasis and priority that could be given to various aspects of the issue.

At about 7.00 pm we adjourned into an adjacent room for dinner, where we were joined by three invited journalists, Nick Grimm from the ABC AM program, Anthony Hoy from the Bulletin and Asa Wahlquist from the Australian

Asa Wahlquist described the dinner in an article in the Weekend Australian Magazine of May 31 2003. *“Desert eaten, the discussion continued to take many energetic, if undisciplined turns. The evening was threatening to collapse under the weight of so many fine ideas, when one of the journalists present banged the table. “What are you going to do about it?” he demanded”.*

This was a sobering challenge. Scientists enjoy the tussle of ideas, and spend most of their time arguing about the contestable parts of their knowledge. This challenge meant we had to return to the core things we all agreed upon, rather than continuing to push the boundaries of our knowledge. It was not difficult, and in 15 minutes we had agreed the five-point plan that was the foundation of the Wentworth Group’s “Blueprint for a Living Continent”.

I read the statement straight from the computer screen, since we had no printer handy. It was recorded by Nick Grimm, and went to air next morning on AM. As Asa Wahlquist reports in the Australian article “the astonished journalist applauded” “Their statement hit the media like a drought-breaking storm.” Nick Grimm subsequently won a Eureka Prize for Environmental Journalism for the report and was commended in the Walkley Press Awards.

### **The Essence of the Wentworth Group’s Message**

As Asa Wahlquist reports *“it was a concise yet eloquent statement, that not only outlined the problem but presented a five point solution.”*

The essence of the message is:

- Clear and simple language that everyone could understand. No qualifiers, conditions or references.
- Clear articulation of the problem, but strongly linked to realistic and effective solutions that could be implemented by governments should they wish.
- No obvious self-interest in that we were not just calling for research funding
- The message kept focused on the key points and did not diverge to the many other interests that the authors also feel passionately about.

One commentator, Daniel Lunney describes the Blueprint as brief, well written and positive. He also criticizes it for not being more comprehensive and addressing some of the other important issues concerning the environment. We could have written a comprehensive treatise, like many others have done, and it would not have had the impacts of the Wentworth Blueprints which were written to deliver our message to the media and politicians rather than academic elites.

Lane et al (2004) also criticize us for not presenting the evidence to support our arguments and prescriptions. This indicates a profound misunderstanding of how media functions – a normal opinion piece in a daily newspaper is less than 800 words and most news stories much less. Our aim was to bring our ideas into the public arena where they could be debated.

### **Delivery of the Wentworth Message**

Giving three senior journalists an exclusive turned out to be very powerful. Many other journalists were keen to get access to the story and we probably handled 50-100 media interviews between us in the weeks following the release.

We were clearly lucky with our timing in that the blueprint was released at a time that caught the window of interest when the media was looking for an answer to all the drought stories that had been being aired in previous weeks.

A key part of building this media momentum was our “staying on message” rather than having it develop in unplanned ways.

We had made it plain that we were delivering the Blueprint to the Prime Minister and the State Premiers before its public release on the Web and in hard copy. This probably added to the media interest.

There was also media interest because we were taking on a very well known and influential radio shock jock in Alan Jones who had been proposing to turn the rivers inland to “drought proof our country”. This element of conflict with a well known figure stimulated interest.

The other factor was some mystique surrounding the Group – who were we, why we were speaking out, why were scientists acting as advocates, why were we named the

Wentworth Group. In fact it was reported that our meeting took place in the town of Wentworth at the junction of the Darling and Murray Rivers, but this is untrue.

This is an example of scientists using all of the modern tools of mass media to communicate messages quickly to a variety of audiences. Radio and print media were critical, but there was also considerable television coverage. Release on the World Wide Web gave instant access to the reports. A benefactor funded publishing a one-page display outlining the Blueprint in the Financial Review and elsewhere.

### **Some Internal Factors**

The members of the Wentworth Group are all experienced scientists with well-established reputations in their areas and some with a significant media experience and profile. This certainly helped in getting media attention and in delivering the messages.

The group also had a shared vision and developed a significant level of trust with each other. There was no competing for supremacy of ideas as is common, but a wish to pool our expertise to develop a more integrated solution to these problems than any of us could have done by ourselves.

Leadership of the Group is shared, and we have no designated leader, much to the concern of both media and outside groups. Leadership is readily shared around the group depending on who has the best knowledge in any particular area. The views of all are respected and we are able to trust each other. Part of this is we have agreed on the boundaries of our activities as a Wentworth Group, and are concentrating our efforts on land clearing and water reform, and we are largely in agreement as to what has to be done in these areas.

### **The Impact of the Blueprint for a Living Continent**

*“It is no mean feat to gather together several prominent & influential Australians for a meal, & come up with a succinct blueprint to change the Nation”* (Nick Grimm, AM Report ABC Radio National).

The Blueprint was very well received. It was understandable and presented simple ways to resolve difficult issues that politicians had been concerned about but were not being given effective solutions for from their agencies or the key interest groups.

We did not pretend that the Blueprint was the only solution to these difficult problems, or even that it was the best solution. We said it was an effective solution, and invited anyone with a better solution to bring it forward. If critics like Lane et al (2004) have a better solution they should bring it out rather than making self-serving calls for more research funding for studies of regional governance.

Politicians generally welcomed the Blueprint and acknowledged receiving it. Some invited us to explore the issues further with them or their staff, and this led to the

Wentworth group report on land clearing and catchment management in NSW which is influencing reforms now being implemented by the Carr Government.

As Lane et al (2004) say “ *the ideas of the group... apparently enjoy considerable policy influence with the current federal administration. Indeed there are a number of obvious parallels between the Group’s approach and the trajectory of the current Federal Governments thinking on key areas of environmental policy, including decentralization.* ” It may be flattering to assume causality here but the Federal Governments thinking on these areas was laid down before the Blueprint was released, so it is more likely we chose to operate within the model already established by Government.

Many people in urban and rural Australia welcomed the Blueprint as providing a way forward on difficult and important issues, and we got many calls of support and encouragement.

Many in the irrigation communities expressed alarm at the thrust of the Blueprint, especially the notion that water had to be taken away from irrigators to restore river health. There were two thrusts to their arguments – that the river was not really degraded, and that if any water had to be taken that farmers should be compensated. Perhaps the proponents faith in their first argument is shown by the fact that they felt the need for the second argument at all.

Murray Irrigation commissioned a consultant to review some of the scientific work on the Living Murray, but he appeared unable to refute the science and seemed in the end to agree the river needed to have some water returned to it. Such critical reviewing is of course totally proper and is the way science advances our knowledge. The thrust of the argument is that the damage is not such that we need immediate action and there is time for further research.

The Institute of Public Affairs also produced a report showing that salinity was not worsening in the Lower Murray, and may indeed be reducing. The facts of this are not in dispute, but the interpretation is. We now appreciate that river health is more complex than is shown by water quality data, and that biological outcomes are an important part of the assessment. The study did not also put the work in the context of the drought or the salt interception schemes undertaken by governments, or the rising salinity in upland tributary streams.

The IPA reports have attracted considerable regional media coverage, but little in the national press. They appear coordinated with statements by irrigation interests that deny the degradation of the river and its importance.

There were also views expressed that it was inappropriate for Government funded scientists in CSIRO to be associated with the Wentworth Group who were making recommendations seen as damaging to some irrigators. Murray Irrigation is reported to have met with the Minister for Science Peter McGauran in an “*attempt to thwart the influence of the Wentworth Group in the present water debate*” (Pastoral Times,

21/11/03). Murray Irrigation Ltd is reported as being concerned that the taxpayer funded CSIRO was inappropriately supporting the Wentworth Group that wants extra water for environmental flows in the Murray River. It is also reported that as Murray Irrigation had committed \$400,000 to projects conducted by CSIRO that a further commitment by the CSIRO to be more supportive of irrigation advances was essential.

There are a number of disturbing aspects to these reports.

- The assumption that by giving funds to support research an interest group wants done the research body should show their gratitude by becoming its advocates.
- That taxpayer-funded research should be to the benefit of those exploiting a resource rather than the broader public interest of those who seek to protect it.
- Research that is damaging to a vested interest group should not be made public, and is flawed research because one group does not like the findings, rather than being flawed research itself. This shows a total mis understanding of the process of science.

When scientists contribute to public debates they will stimulate various reactions. The idea that for every PhD there is an equal and opposite PhD is well know from the debates about smoking and health and other controversial issues. Bringing out these various interpretations allows for full examination of the evidence but can confuse the public. People can decide what are the important questions and can weigh up the evidence.

### **Subsequent Reports of the Wentworth Group A New Model For Landscape Conservation in New South Wales**

NSW Premier Bob Carr invited the Wentworth Group to develop a way forward to address the problems of clearing of native vegetation in NSW. In this exercise, some Wentworth Group members worked with farmer interest and conservation groups to hammer out a Plan that has subsequently been adopted by the NSW Government.

This report, A New Model For Landscape Conservation in New South Wales, was released in February 2003. and led to the formation of the Sinclair committee to implement the main ideas which has led to the establishment of catchment management structures in NSW.

### **The Blueprint for a National Water Plan**

The Wentworth Group released its The Blueprint for a National Water Plan on 31 July 2003, and the Blueprint also got reasonable media coverage. The Blueprint laid out the immediate challenges for water reform.

1. Protect river health and the rights of all Australians to clean usable water, by:
  - ensuring that the environmental needs of our river systems have first call on the water required to keep them healthy, protecting both their environmental values and ability to meet human needs into the future;

- establishing comprehensive water accounts and management systems that reflect the linkages between run-off, river water and groundwater systems;
  - agreeing to bring over-allocated river and groundwater systems back into balance by recovering water for the environment;
  - protecting Australia's less developed rivers by adopting an Australia-wide classification system to guide management strategies, and guarantee protection of important natural and cultural values; and
  - investing in the science required to make better management decisions in the future.
2. Establishing a new, nationally consistent water entitlement and trading system that provides security to both water users and the environment by:
    - defining water entitlements as a perpetual share of the available water resource;
    - clearly articulating ways that water can be used in each catchment to protect both the environment and other uses;
    - linking entitlements and allocations to transparent and balanced water accounts; and
    - removing impediments and simplifying temporary and permanent water trading so that water can be used to create greater social and economic value.
  3. Engage local communities and ensure a fair transition, by
    - supporting community-based catchment, river and estuary management;
    - establishing Environmental Water Trusts for stressed river systems to provide active and accountable environmental management;
    - reducing fresh water use in our cities and towns; and
    - ensuring that steps to recover environmental water are both fair and efficient, so that no group is asked to bear an unreasonable burden in achieving these national goals.

### **Outcomes of the Wentworth Group**

There appear to have been a number of important outcomes from the activities of the Wentworth Group.

Firstly, Governments have responded to the issues addressed by the group, and while many others have also been important in these reforms, the activities of the Wentworth group are widely regarded as having been very influential. The controls of tree clearing in NSW and now in Qld, the commitment to a new round of water reform in the National Water Initiative with funding of \$500 million and the decision of the federal Government and subsequently the Murray-Darling Basin Ministerial Council to commit 500 GL as the first step in restoring the Murray river to health are significant outcomes.

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Secondly I hope we have encouraged the scientific community to bring forward solutions to the many problems faced by our Nation, in simple and clear ways that can inform public debate. The community is tired of hearing of the litany of problems, and how researchers would like to be funded from the public purse. They were very positive to the solutions brought forward by the Wentworth group.

Thirdly I hope we have helped attract students to careers in science by showing that scientists can make a difference, and are concerned about fixing some of the problems of the world.

Lunney (2003) has described the Blueprint for a Living Continent as a major document in Australian conservation biology. He says “ *The Blueprint is more than just an influential report, it is a model for change.*”

### **Other Pre-Disposing Factors**

It is likely the impact of the Wentworth Group was made easier by the malaise in the public service at both State and Federal levels. There has been significant deskilling, and substantial technical knowledge is now almost a barrier to promotion in the managerial or policy ranks, where generalists are preferred (technical knowledge is seen as a liability) (Thompson, Canberra Times 27/11/03). Allied with a culture that the public service is there to implement the Government’s policy, alternative policy ideas to present policies are often not encouraged. There is also a suspicion that bureaucracies are often more interested in expanding their power, influence and funding than solving problems. These three factors await further examination, but if they are true, point to a serious problem for our country.

### **Conclusions**

Committed and knowledgeable scientists can make a contribution to public policy if they are prepared to speak out. In doing so it is important that they clearly and simply articulate the problem, and identify some realistic and acceptable ways forward. This requires methods of public communication that are not usual for scientists, and which many are uncomfortable with. Simplification of complex issues is fundamental to communicating to a wider audience. Detailed references and qualifiers are inappropriate if ideas are to be got into the public domain. That is not to say that such subtleties are unimportant; just that they get played out in other arenas.

The Wentworth Group presented its views privately to political leaders and publicly through the mass media and the World Wide Web. Having a clear and simple position, and the discipline to stay on message helped get these ideas into the public arena.



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