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Title: Who turns the tap off? Introducing social flow to the Australian water debate.
Journal: Rural Society **ISSN:** 1037-1656
Year: 2008
Volume: 18
Issue: 2
Pages: 131-139

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Who turns the taps off? Introducing social flow to the Australian water debate

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Abstract

Water has become a critical issue in Australia. Who has it and who determines priorities have become highly politicised. Yet the basis on which priorities are set and stakeholder views incorporated is less well defined. The commodification of water through the introduction of a water trading policy and the use of market principles suggest a prioritising of the economic over environmental and social concerns. In this paper we discuss the way water decisions are determined, outlining the myriad bodies through which the decisions about water priorities are determined and noting an inherent economic bias in the rationale behind water decisions. We introduce the notion of social flow to indicate a largely overlooked aspect of water use – the social good resulting from water use by community members - to argue that this factor should be given greater priority in the way water allocations are determined, priorities set and stakeholder views incorporated.

Who turns the taps off? Introducing social flow to the Australian water debate

Australia is experiencing a major water crisis brought about by a severe and longstanding drought and consequent depletion of water stocks and river flows. That the issue has become one of national urgency is evident in the creation in 2007 of a federal Ministry for Climate Change and Water under Minister Penny Wong, and a National Water Commission headed by Ken Matthews, a senior and experienced Canberra bureaucrat. Closer to the ground Catchment Management Authorities have been established across the country to allow local people an input into decisions about land and water. In between these bureaucracies there are various bodies at state and regional levels that provide some form of water monitoring. While the creation of new instrumentalities and the ongoing work in long-established bodies provide various foci for attention to the water crisis, it does nothing to replenish scarce water stocks. Consequently what water is available has become a source of dispute among stakeholders about priorities and practices. Among the competing voices are irrigators looking to secure their entitlements and crops, bureaucrats anxious to ensure ongoing national food security, politicians concerned about town water allocations in their electorates, environmentalists desperate to ensure biodiversity and environmental flows are maintained and recreational water users wanting ongoing access to rivers and waterways.

Complicating the messy business of water reform has been the introduction of water trading – a process of commodification of our scarce water supplies that adds significant complexity. Water trading brings market forces into the area of water allocation, giving an economic value to water as a tradeable commodity. The

Wentworth Group of Concerned Scientists (2003: 12) argue that 'markets make good servants but poor masters'. It is apparent that the dominance of market forces downplays the social justice element of water allocation.

In this paper we discuss a range of voices dominating the water debate, noting the prioritisation of an economic and environmental agenda and the lesser consideration given to the ordinary social uses of water, which we refer to as the *social flow*. Our discussion of social flow goes some way to making transparent the overshadowed social justice implications of water allocations and, in doing so, raises questions about water trading policy, the way we value water, the agenda surrounding water decisions and prioritised stakeholders. By incorporating an understanding of social flow we make transparent the way we value this scarce resource and expose the need for more inclusive decision making bodies that bring in the voices of community members, both Indigenous and non-Indigenous, who have qualitatively different ways of assessing the value of local water ways.

We begin by introducing the notion of social flow to describe the often overlooked largely qualitative dimensions of water that add to human well-being before discussing water policy and the underpinning ideology that shapes decisions. This discussion gives some idea as to why certain values, positions and stakeholders are prioritised and why social flow remains an indeterminate and increasingly marginalised factor in the water debate. We do not purport to be determinative in our assessment. Rather we use this analysis to allow an expanded debate that moves beyond economics and environmental factors to other fundamental issues of value to society in relation to our scarce water resources.

Social flow

In the crisis around water, the social value of water to a community and to local community stakeholder groups is often overlooked. Exposing the social value of water, or the *social flow*, creates a space for the voices of missing stakeholders to emerge. The CSIRO (nd: 4) describes the social value of water as 'the features of water and water bodies that people consider to be important. This includes the ways in which each of the many groups and cultures in the region use water, such as for fishing, hunting, camping or picnicking, or appreciate water bodies for their beauty and inspiration.'

Nathan's (2007) notion of social flow describes these qualitative dimensions of water. Citing the connection between people and water and the cultural value of water she argues that:

> *Our imagination ... require a history of our past connections with water, a sense of how our values have shaped particular waterscapes and then ricocheted back into community life ...A scientific understanding of changes in riparian vegetation, streamflow volume, and the physical form of bed and banks are strands of knowledge that can strangle our more central stories of the natural world* (2007: 4).

Social flow includes water-based (swimming, canoeing, fishing etc) and water-enhanced activities (picnicking, camping and walking for example), as well as any

human activity in relation to landscape, scenic value and cultural heritage that is enhanced by water. *Social flow* gives a name to the gap recognised by Lockie and Rockloff (2005) in their assessment of the way decisions are made in relation to coastal water. Arguing for more inclusive decision making processes, they note the dominance of economic and ecological data over social data privileges certain values and stakeholders. 'The tendency to promote a technical view of natural resource management ... ignores equity considerations such as the distribution of costs and benefits and other human welfare implications' (Lockie and Lockloff, 2005: 14). Social flow describes the connection between people and their waterways and impacts significantly on the health and well-being of local citizens.

Social justice principles

The lack of understanding of the social flow value of water has led to certain stakeholder groups' interests being prioritised – often these are the larger farm units over the smaller lifestyle units (McKay and Bjornlund 2001) and non-Indigenous groups over Indigenous groups, a practice Pellow, Weinberg and Schnaiberg (2001: 424) describe as 'environmental racism'. The Boomanulla Statement emerged as a result of concerns held by Indigenous people about their exclusion from decisions regarding water and outlines the views of Indigenous people concerning natural resource management policy. Noting the integral nature of rivers to the cultural life of Aboriginal communities, the statement critiques the planning and consultation processes for failing to incorporate an understanding of Aboriginal culture and concerns (Callaghan & Associates 2002).

Nancarrow and Syme (2001: 443) address the need for justice principles to inform the water debate, arguing that it currently lacks 'fairness' and that 'prosocial aspects of community life' are missing. They describe water reform as 'well-meaning paternalism' (448). The result is that the benefits are not equally distributed and that the introduction of market forces has resulted in fragmented and socially divisive outcomes (Syme and Nancarrow 2001). Agreeing with the Wentworth Group they note that 'markets are a blunt instrument' for achieving social justice outcomes (McKay and Bjornlund 2001: 394) causing instead financial hardship and social dislocation and creating significant blind spots around community and sustainability. Decisions tend to be made around a technical view, a process that 'ignores equity considerations such as the distribution of costs and benefits and other human welfare implications' (Lockie and Rockloff 2005: 14).

This social fragmentation can be seen in a study on water trading in the Victorian Murray Valley (RIRDC, NWC and MDBC 2007). This study reveals significant social impacts of water trading include widespread community opposition to water being traded out of the community because of the resultant decline in population and community benefit and loss of services and infrastructure.

In preparing this paper we spent a long Spring Sunday afternoon on the banks of the Yarra River in Melbourne observing people picnicking on the banks, cyclists riding beside the river, kayakers slowly working their way upstream and tour boats gliding international visitors through the heart of Melbourne. These observations provide some sense of the social value of water to the community – a value that is qualitatively different to the economic and environmental dimensions outlined above.

It is these dimensions of water use, the social flow of a community and its connection to water, that add to quality of life experiences that have not been addressed in our re-conceptualisation of scarce water and its value. Moving on from this premise we therefore argue that the prioritisation of economic factors is relation to water decisions reduces exposure to the social value of water. Before turning to ways we might make social flow more transparent, it is useful to understand the nature of Australia's water policy and the way it has come to represent economic priorities and certain stakeholder positions.

Water policy – on what basis do we determine priorities?

The concept of taking water for granted disappeared somewhere around the turn of the century in Australia. Climate change / variability resulting in the long-running and widespread drought blanketing the country has diminished our water stocks to such a degree that city people now measure their quality of life via a scaling system that allows them greater or lesser access to water. A 1, 2 or 3 means a reasonably relaxed lifestyle. A 4 or 5 means the car stays dirty, the garden wilts and showers are time-limited. Because the water issue has crept so potently into the consciousness of our city dwellers, it has become much more than an element of drought to be dealt with by a few isolated farmers. It is now a politically divisive agenda, riven with interest groups as diverse as irrigators, big business proprietors, small town mayors and garden owners on Sydney's north shore. The potential harsh reality of climate change and/or increased climate variability adds a political imperative to an issue that gradually has become a constant now and indeterminately into the future. Given this reality, it is little wonder that water policy is an area of growing and urgent

significance. How water policy is determined, in whose interests' decisions about scarce water resources are made and the ideological determinations that drive these decisions expose the prioritisation of certain stakeholder needs over others. One way to provide a rudimentary assessment of these decisions is to examine water policy and the water bodies tasked with overseeing the nation's water.

The Council of Australian Government (COAG) Agreement of 1994 resulted from concern over environmentally unsustainable practices relating to water. While it outlined the need for economic, environmental and social outcomes for water reform, as McKay and Bjornlund (2001) argue, the reforms when combined with National Competition Policy did not necessarily address significant environmental concerns or the social. Rather the reforms allow privatised water bodies into the market. Because a market approach is dependent on economic outcomes rather than social or environmental, water reform policy set the stage for a downgrading of the environmental and social uses of water.

In the early part of the twenty-first century, and in response to growing alarm over the reduced availability of water, the then Prime Minister, John Howard, established a Ministry of the Environment and Water Resources. In January 2007, in response to continuing drought conditions as well as pressure from others in the community, and with an election looming, Howard, unveiled a 10 point $10 billion national water plan. This plan included the Commonwealth government taking over the Murray-Darling Basin system from the states, modernising irrigation systems, boosting water efficiency systems on farms, and addressing the over-allocation of water by buying up water entitlements. Perhaps not surprisingly given the seriousness of the situation,

none of the 10 points have an overtly social focus. All were designed to improve economic and environmental benefits and to address governance issues. Noting the competing interests the then Prime Minister stated:

> *Without decisive action we face the worst of both worlds - the irrigation sector goes into steady but inevitable decline while water quality and environmental problems continue to worsen.* (AAP 2007: 1)

The Rudd Labor government, elected in 2007 followed up with a Ministry for Climate Change and Water under Senator Penny Wong. The Ministry was tasked among other things with overseeing environment and water resources and advising on climate change. The Ministry oversees the Water Act 2007 and Water Amendment regulations 2008 which created the new Murray-Darling Basin Authority as a national entity under the control of the Commonwealth government. Senator Wong also established a Council of Australian Governments Working Group to address the nation's continued urgent need for water reform. In April 2008, surpassing the Howard plan, she announced a $13 billion plan for water management including significant funds to buy back water licences from irrigators (ABC 2008).

The National Water Commission is also a Commonwealth instrumentality established in the new century to oversee water reform and to advise the Minister for Climate Change and Water and states and territories on water issues. It oversights the National Water Initiative (NWI), a blueprint for water reform agreed to by all COAG state and territory governments between 2004 and 2006. The goals of the NWI are:

- *the continuing national imperative to increase the productivity and efficiency of Australia's water use;*
- *the need to service rural and urban communities; and*
- *ensuring the health of river and groundwater systems, including by establishing clear pathways to return all systems to environmentally sustainable levels of extraction* (National Water Commission 2008).

While there is a strong focus in the Initiative on environmental and *other public benefit outcomes*, economic factors are prioritised in the fostering of water trading and water pricing.

Meanwhile speaking on the ABC Country Hour on 23 October, 2007, Ken Matthews, head of the Water Commission, brought a new dimension to the debate about water rights by introducing the a debate about the rights of city versus country stakeholders. He noted that there had been an over-emphasis on rural water problems and a plan was needed for urban water supplies. Such a plan, he argued, would not rule out piping water from rural to urban areas but would ease the worries of rural users and address the ad hoc nature of urban water planning (ABC 2007). The competing demands of governments / irrigators and urban/rural users establish water access and usage as a significant and ongoing field of conflict into the foreseeable future. With climate change looming and reduced water likely, the debate is likely to become increasingly confrontational.

Adding another layer of complexity, State governments have significant involvement in water policy and various departments across the country are tasked with addressing water issues. In 2003 Catchment Management Authorities (CMAs) were established at regional levels and answerable to state governments to introduce some level of local expertise into water policy decisions. New South Wales for instance has thirteen CMAs and Victoria ten. Each CMA has a Chair and up to six Board members

appointed by the responsible State Minister and each CMA has a general manager and public service staff working on regional initiatives. While the Victorian CMA site discusses the need for complex integrated decision making around ecological, economic and social objectives (Victorian Department of Primary Industries 2007), the NSW CMA site gives an environmental focus to the role of the CMAs describing them as responsible for managing natural resources (NSW Catchment Management Authorities 2007). It does not mention the social aspects of water resources or stakeholders who might represent these factors. Although not a perfect fit, there are nineteen Catchment Management Authorities (CMAs) in the Murray-Darling Basin area – one in South Australia, four in Queensland, nine in NSW and five in Victoria.

In addition to these structures, the Murray-Darling Basin site – the food bowl of Australia - is oversighted by the new Murray-Darling Basin Authority (replacing the Murray-Darling Basin Commission in 2008) and established as a result of the Water Act 2007 to *enable water resources in the Murray-Darling Basin to be managed in the national interest, optimising environmental, economic and social outcomes* (MDBA 2008). It is the largest catchment management program in the world covering over a million square kilometres and based on the Murray and Darling River systems.

As well as these government sponsored organisations, irrigators along the rivers have their own bodies to organise the business of water allocations. In the Murray-Darling Basin area this includes the Murrumbidgee Irrigators and Murray Irrigators. These previously government bodies have been privatised and their shareholders are the irrigators. Their role is to provide the water under licence to irrigators along the rivers.

It is evident that the business of water is a complex one with various layers of governing bodies intersecting across multiple levels of governance and often with competing agendas. Nationally the government wants to preserve and protect water as an economic resource, but in a way that is environmentally sustainable. At state levels, in addition to obvious economic issues, governments are concerned to protect the natural resources and environmental aspects of water and rivers. At regional and community levels bodies such as the CMAs are working to preserve the natural resource value of the water ways and to introduce local concerns to the water debate.

From this cursory examination of the core business of the water instrumentalities it appears that the commodification of water, and its increasing scarcity, has allowed economic factors to overshadow social aspects of water use. In the public material on the work of these organisations it is difficult to find a focus on the qualitative dimensions of water in the social and cultural life of a community. We would argue that there is a need to make transparent the social value of water or the *social flow* as a critical factor in the way we conceptualise and plan for our water resources.

How do we incorporate social flow?

Community engagement is critical to the way we address social flow. Yet community knowledge is largely overlooked and in many cases Indigenous knowledge is being lost (Land and Water Australia 2005).

> *Landholders, Aboriginal communities, environmental and other interest groups, government and the general community are all important stakeholders in natural resource management. Between them these groups own or manage*

> *natural resources, have experience or knowledge of natural systems, are traditional owners and maintain diverse environmental, economic, social, cultural or spiritual values. (*National Water Commission 2005: 10)

The Wentworth Group of Concerned Scientists (WWF2003) went some way to acknowledging the need for greater incorporation of the social in devising change in the way Australia uses its water became the group's mission. The blueprint included the following underlying principles for water policy.

1. Protecting river health and the rights of all Australians to clean, usable water;
2. establishing a new, nationally consistent water entitlement and trading system that provides security to both water users and the environment; and
3. engaging local communities to ensure fair transition. (WWF Australia 2003: 2-3)

Discussing this blueprint, Cullen notes the disparate voices –

> *Politicians generally welcomed the blueprint ... many people in urban and rural Australia welcomed the blueprint as providing a way forward on difficult and important issues ... many in the irrigation community expressed alarm ... especially the notion that water had to be taken away from irrigators to restore river health ...* (Cullen 2004: 4)

Despite recognising the need to engage communities, it was not the purpose of the blueprint to provide transparent strategies for bringing diverse community voices into the debate. We would argue that incorporating social elements of water value into the

ongoing national water discourse requires a number of strategies. The first is, of course, to understand social flow and to recognise its importance to community well-being. In so doing we defray the overriding economic priorities that currently dominate and expose vested and prioritised interests. However knowing the social is important and then incorporating and valuing it are vexatious problems. Taking the problem in two stages we need to firstly develop appropriate strategies to engage the missing voices and then, in a discourse that prioritises 'value', to find a way to value the social flow they represent.

Despite acknowledgement of the importance of community engagement, as Leitch (2005) notes, governments are very poor community engagers and consultation often becomes a code word in people's mind for telling people that change is on the way. Bellamy and McDonald (2005: 3) note that the development of new and complex tools for engaging communities and resolving conflict in 'multi-actor contexts' are important and that these need to balance business and industry benefits with environmental and social concerns.

Working in the Murray-Darling Basin, Aslin and Brown (2005) developed a toolkit for engaging communities in discussions of resource management. They note the need to engage in genuine consultative processes so that a shared vision and real commitment develops between communities, experts and governments. Drawing out the differences between local (place-based), specialised (expert), strategic (government) and holistic (synthesised) knowledge, they argue the need for different methods of engagement depending on the different levels of knowledge.

Lockie and Rockloff (2005) also describe various decision tools for engaging communities including multiple criteria analysis, GIS and scenario mapping. However they also note that if these tools are applied without concrete strategies for ensuring the incorporation of social data and wide participation, the result can be 'outcomes that are neither fair or efficient and that reflect the values and interests of certain stakeholders more than others, even in the absence of overt conflict' (Lockie and Rockloff (2005: 8, quoting Pelletier et al. 1999). Adding further complexity, Ross et al. (2005: 53) note the need for a 'negotiation space' to incorporate the cultural views and participation of Indigenous people.

It is not our intention in this paper to assess the various tools and methods discussed above. Rather we note that these exist, but that ineffectively applied their application can continue to exclude. Nonetheless, engaging communities is but one stage in the process of valuing social flow. How, for example, do we value unpolluted air, water and beaches, the aesthetic value and wildlife of waterways, the picnic space and the bush walks?

How do we value social flow?

Because social flow describes a relation between people and their waterways, it is difficult to measure quantitatively. Yet it is the qualitative dimensions of social flow that render them invisible. Nonetheless in something of a conundrum, there have been some attempts to give an economic value to the social uses of water thereby allowing its value to be incorporated into a system that relies on economic value. We would

argue that these efforts to date have at best been partially successful as they tend to focus on only one aspect of community interactions with water.

Governments and the CSIRO for example have been particularly involved in assessing and quantifying social use of waterways and the added value of these uses to communities through tourism. Giving a monetary value to these activities is difficult although not impossible. For example the value of estuaries in terms of natural capital and the goods and services they produce is estimated at $39 000 per hectare per year (National Land and Water Resources Audit 2002). Another example of a study giving a quantitative value to social uses is a National Recreational and Indigenous Fishing Survey (NRIFS) conducted in South Australia in 2000/01 (Jones and Doonan 2005) which found that 24% of the South Australian population had been fishing in the previous twelve months, a figure corroborated by a Victorian study that found that 23% of Victorians fished in a twelve month period (Environment and Natural Resources Committee 2001). Participants in the study said that their chief motivation was 'to relax and unwind', 'to be outdoors' or to 'fish for sport'. It was estimated that over $148 million was spent on recreational fishing in the twelve month period in South Australia alone.

Land and Water Australia (National Land and Water Resources Audit 2002) estimates the value of recreational fishing across Australia to be $2.9 billion each year, with at least 60% being in estuaries. A Victorian Water Inquiry conducted in 2001 determined that boating, fishing, water sports, swimming, sightseeing and nature study are all recreational activities conducted in Victorian waterways and wetlands. There was concern expressed at this Inquiry that loss of water in lakes and waterways

was resulting in people leaving these areas and therefore it was noted that recreational water plays a significant role in preserving the social fabric and health of rural and remote Victorians. Further it was argued that maintaining waterways for social uses is critical to attracting tourists to these areas.

A CSIRO study conducted in 2006 (Dyack, Rolfe, Harvey, O'Connell and Abel 2006) into recreational uses of the Coorong and Barmah forests along the Murray River is an attempt to quantify recreational use for the purpose of including these activities in management and policy decisions. Participants were taking part in water activities but generally noted they came to these areas to relax. The researchers valued the non-market value of these visits at over $500 per adult per trip and estimated approximately 25000 trips to the Barmah and 112 000 to the Coorong per year for a total value of $13 million to the Barmah area and $57 million to the Coorong area.

While these studies give *some* quantitative economic dimension to *some* social uses of waterways they do not successfully capture or quantify the wide range of qualitative value flowing from the social uses of water, a value that enhances the quality of life and cultural and spiritual identity of people along the waterways. Giving value to these qualitative dimensions remains methodologically difficult and yet we must find ways to incorporate the social value of water into the national discourse on water. Until we address this missing parameter, the water debate remains captive to the economists and our future access to waterways for social uses is under threat. Nonetheless it is not our intention to develop this methodology in this paper. Rather our purpose is to provide a name for the missing element in the debate. In our view the concept of social flow empowers community members – the missing voices – to

assert their rights as stakeholders, to have some claim on resources and to allow a value to the connection of people with place. It also reduces the prioritisation of the economic over the social and the interests of some stakeholders over others.

Conclusion

Water, or the lack of it, has become a significant national issue in Australia, resulting in the establishment of a number of bodies tasked with making decisions about stakeholder priorities. Who has water, who doesn't, and who is charged with determining who gets priority in water allocation are of crucial importance to the future of Australia.

In this paper we argue that the current water debate is sharply focused on the economic aspects of water use and far less, if at all, on the social and cultural importance of water to people and communities. Disputes between irrigators and environmentalists and rural and urban water users typify the dominant water debate. Despite the critical water situation, a prioritisation given to the economic valuing of water will inevitably detract from the quality of life enjoyed by Australians and erode the natural beauty of our waterways.

We argue that the social value of water, or social flow, should not be overlooked in the construction of the water debate. The social uses of water, or social flow, include water based and water enhanced activities – activities that add to people's quality of life and attract tourists – as well as those of cultural and place-based significance. There have been some very useful attempts to quantify the economic dimensions of

the social flow. However none have provided a comprehensive over-view of the qualitative value of social uses and cultural significance of water to communities. Nor have they empowered people to advocate for their connection to their waterways to be valued. Rather than develop a methodology, our paper provides a tool for advocacy. It allows people with a connection to their water ways to value the social uses of water and to be empowered to join the water debate so that the economic productivist uses are not totally dominant.

We argue that social flow can be incorporated through more thorough processes of community engagement and a more comprehensive valuing of water. A failure to give credence and value to the social value of water may well have unintended consequences including the loss of people from communities as lakes, rivers and streams dry up, the loss of tourist markets in inland areas, and an irreplaceable loss of cultural heritage knowledge. The inclusion of social flow as a critical discourse around water and water valuing provides some protection to the quality of life of people and communities along the waterways of this country.

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