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This is the submitted for peer-review version of the following article:

**Harriden, K. & Graymore, M.** (2013). Tapping the turn: The social dimensions of water management. *Australasian Journal of Environmental Management*, 20,3. 175-178

Which has been published in final form at:

<http://dx.doi.org/10.1080/14486563.2013.823266>

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EDITORIAL

## **Tapping the Turn: the social dimensions of water management**

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The history of Australian water policy development and management, including service delivery, is dominated by a positivist scientific-technical approach (Smith 1998). One consequence of this domination is the separation of people from the environment, as recognised by the authors of this edition's first paper who argue that "the idea of separating people from the environment seems to be present in the world-view of current Australian government agencies" (Lukasiewicz et al. 2013, p. ???).

This positive approach has led to water being seen to be a resource that needs to be 'tamed' using engineering solutions to ensure communities, farmers and industry have the water resources they require, even in times of scarcity. However, this approach is increasingly being critiqued as a contributing factor to many water related issues, such as river and wetland health (Kingsford 2000; Graymore & McBride this issue), with a growing recognition that people do not see water, or their water use, from the same perspectives as institutional water managers. That is, many water issues are, in no small part, because institutional water management does not consider the social and cultural dimensions of water. Consequently, Integrated Water Resources Management recommends that the social dimensions of water are considered alongside economic and environmental (GWP 2000). This recommendation has been adopted by the Australian National Water Commission (NWC) in the National Water Initiative which committed each state and territory to consider social outcomes as well as economic and environmental outcomes in their water management plans (National Water Commission 2011). This turn toward acknowledging, and incorporating, the social and cultural dimensions of water in institutional policies and practices, is the focus of this special edition.

Humanities, Arts and Social Sciences (HASS) research has actively contributed to the move away from the dominance of scientific and technical understandings of water. HASS-based water research has sought to include social and cultural perspectives in water research, by investigating water practices at local scales, including households, farms, businesses and indigenous communities, and questioning how these perspectives compare to institutional water policies and practices. Using both quantitative and qualitative methods, HASS research has illuminated the complexity of the social dimensions of water, offering valuable insights the ways people interact with, value and use water than can influence the outcomes of water management that institutional water managers can use to inform the development of policies, service delivery practices and communication campaigns. For example, the success of water demand management programs is largely dependent on the response of the community to the program. Community response depends on individual values,

perceptions of the need to reduce water use, and water saving knowledge and skills of the community members. By understanding these social and cultural dimensions of water within the community, water managers are better informed, enabling them to develop water management policies and practices that are more effective in producing desired outcomes.

The importance of bringing HASS perspectives to water management has been recognised, and supported, by the National Water Commission's funding of a research fellowship *Cross-Connections: Linking Urban Water Managers with Humanities, Arts and Social Science Researchers* (Sofoulis 2011). This NWC Fellowship demonstrated that Incorporating HASS research into water resource management is not entirely new. In Australia, HASS research has been incorporated in contemporary urban water policy development and service provision (Sofoulis 2011). Yet, Sofoulis found there is a tendency for institutional water managers to outsource such research on an ad hoc basis, when in-house expertise is low for example, or undertake HASS-type activities via a template approach. Further, even when HASS research methods and approaches are applied, there is the expectation that it will fit into the dominate Engineering, Environment and Economics framework and provide solutions, rather than identify further problems.

However, HASS research has a more active and enduring role to play in water resource management, than it has to this point to ensure water management fully considers social, environmental and economic dimensions of water. Thus, this special issue argues that it is time institutional water managers to collaborate with HASS researchers to include water's social and cultural dimensions in their decision making processes and produce fully integrated water resource management. The articles in this special edition showcase some of the perspectives and frameworks HASS-based research can provide to institutional water managers to enable them to better understand and incorporate the social and cultural dimensions of water into policy and management planning.

## **Tapping the Turn**

*Tapping the Turn*, an international conference held in Canberra in November 2012, presented over 35 papers of HASS-based water use, policy development and management research, with case studies from across the globe addressing a range of human-water related issues (see <http://tappingtheturn.org>). This conference successfully demonstrated the links between the natural, physical and technical aspects of water and water's social roles and cultural meanings.

The articles in this special edition provide a taste of the diversity in the range of contributions HASS research can make to more socio-culturally focussed integrated water resource management. Each article embraces the turn away from the presumed and established fundamental separation between the natural realm of water and the social contexts within which it is used, represented and controlled. They show that individuals, groups and communities often use, and value, water very differently to how institutional water managers envisage, and articulate the difficulties this can cause in the implementation of water and environmental management policies and practices. Each article argues for a greater incorporation of the social dimensions of water in institutional water policies and management practices and offer tools, techniques and insights to create water management policies and practices that respond to and reflect water user's values and practices.

## Articles in this issue

Lukasiewicz, Davidson, Syme and Bowmer open the edition grappling with a question central to the concerns of the conference. The article outlines the different understandings of water, and human relations to it, held by various stakeholders in water resource management debates. For example, scientists and government managers regard the environment as a passive recipient of human behaviours, whereas landholders feel they are active agents within the landscape. While the authors explore how these relationships influence public water policy debates, they also recognise that with so many different perspectives of human-water relations it means that “there is no established consensus of what the environment is, and therefore, how much water it needs.”

Weir, Crew and Crew’s article, based on Dr Weir’s keynote address, continues the debate about how to define the environment, using the indigenous concept of ‘Country’ to rethink presentations of nature embedded in institutional water management. By doing so, they demonstrate that how ‘nature’ is defined can give one knowledge system a privileged position over others. The authors’ analysis of one indigenous organisation’s strategy to bring a culturally based environmental management approach to forested wetlands in southeast Australia, demonstrates that both better policy and practices can come from incorporating the social dimensions of water in the policy process.

Tingey-Holyoak, Burritt and Pinsaniello’s article investigates the challenge of blending farm dam equity and safety policy, in an environment that shifts from shortage to surplus, and how farmers respond to sustainable farm dam management pressures from institutional water managers. They use a case study of *disconnectedness* from South Australia and another of *interconnectedness* in Tasmania to measure farmer resistance to dam management regulation. They found that the more relevant regulations are to farmers’ desire for autonomy, the lower farmer resistance is to regulation.

Graymore and McBride explore the dilemma of balancing human and ecological water needs by looking at the impact of water reforms on on-farm wetlands. They show that water management changes driven by scientific and technical understandings of water and the need to supply communities with water can have unintended consequences on the social and ecological values of the farm waterscape. In this case the commissioning of the Wimmera Mallee Pipeline (in western Victoria, Australia) changed the local water regime, provided water security for communities, but had negative unintended consequences for the range of socio-ecological values provided by on-farm wetlands, such as amenity, aesthetics, production and biodiversity.

Golder, Fisher and Townsend’s article creatively exposes the variety of different ways people use and connect to water in their daily lives, through the use of diaries, interviews and photographs, while considering the applicability of ethnographic research methods to unmask everyday practices. In contrast to “big water’s” (i.e. institutional water managers) notions of domestic water use, this research records multiple “little water” (i.e. individual) cultures in Auckland that contest institutional water management understandings. The authors advocate this research approach as a useful method to develop richer, more complex understandings of everyday water cultures in our communities from which water management policy and practices can be based.

Consequently, this special issue provides an important insight for water and environmental managers of the importance of understanding the social dimensions of water and its management when developing policy and programs. And in doing so, we call for greater collaboration between water managers and HASS researchers in an effort to develop more effective and equitable water management policy and practices to ensure the social dimensions of water. This will ensure that the social roles and cultures meanings water are considered alongside the scientific and technical understandings.

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