Identifying the conditions for social learning in water governance in regional Australia

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A B S T R A C T

Using critical systems heuristics as a sense-making framework, we explored historical and contemporary aspects of the water managing situation as viewed from the Goulburn-Broken Catchment – part of the Australia's Murray–Darling Basin. This revealed key differences in how our respondents perceived what the situation 'is' and what it 'ought' to be, especially in relation to the centralisation of decision-making power. We explored aspects of the Victorian Salinity Program as a preliminary case study through the theoretical lens of 'social learning'. This revealed many parallels to how respondents thought the current situation 'ought' to be. In comparison, there was a perception that the situation as it currently 'is' has experienced a shift back to more centralised policy and management, both at the state and federal levels, which creates challenges for the governance of water resources across the Murray–Darling Basin and presents the opportunity for social learning to again play a transformative role.

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Introduction

There is growing awareness of the failure of public policy to deal with complex, uncertain situations like those framed by Rittel and Webber (1973) as 'wicked' (APSC, 2007; Head, 2008; Ison, 2010). This is readily apparent in the field of water and/or river management and governance. Traditional governance mechanisms, such as regulation, markets or fiscal mechanisms, education or information provision have been found wanting in relation to 'wicked situations' because they are premised on the belief that there is a fixed and knowable problem, framed (Schön and Rein, 1984) in a unitary way that is acceptable to all stakeholders. This has led others to seek alternative governance models such as social learning (Ison et al., 2007; Pahl-Wostl et al., 2007; Collins and Ison, 2009; Leys and Vanclay, 2011).

When reflecting on past policy failure, Ingram (2008, p. 17), who has long experience of water governance, argued that:

"*Attempts to design improved water resources management and institutions must attend to context. Standardised reforms have failed time after time . . . In general, clumsy solutions that embrace multiple perspectives and appeal to different kinds of logic are*

preferable . . . mixed strategies that appeal to different ways of knowing are likely to be more effective."

New governance approaches such as social learning can be seen as responding to Ingram's concerns. They are potentially relevant because they acknowledge the 'death' of stationarity (Milly et al., 2008), which has long been a cornerstone of water policies, and accept the historicity of situations along with associated path dependencies and significance, for interventions, of initial starting conditions (RCEP, 2010).

In Australia there has been consistent public policy failure in the governance of Australia's largest and most significant river system, the Murray–Darling Basin (MDB). New attempts at governance reform are underway as a response to past policy failures (Connell and Grafton, 2011). Within a federal system of governance and a multi-catchment (or watershed) river system, the role of regional-level governance arrangements has come to prominence in the discourse on managing water across the MDB. Despite past failures, we recognise that there are lessons to be learnt from past experiences in regional-scale governance that can inform the current situation in the MDB (Bellamy et al., 2002).

In this paper we report research grounded in one river catchment within the State of Victoria; the governance situation can be understood as comprising a layered, systemic structure from local to international levels with the presence or absence of both vertical and horizontal complexity and connectivity (Wallis and Ison, 2011a). While the experiences and perspectives of those closely

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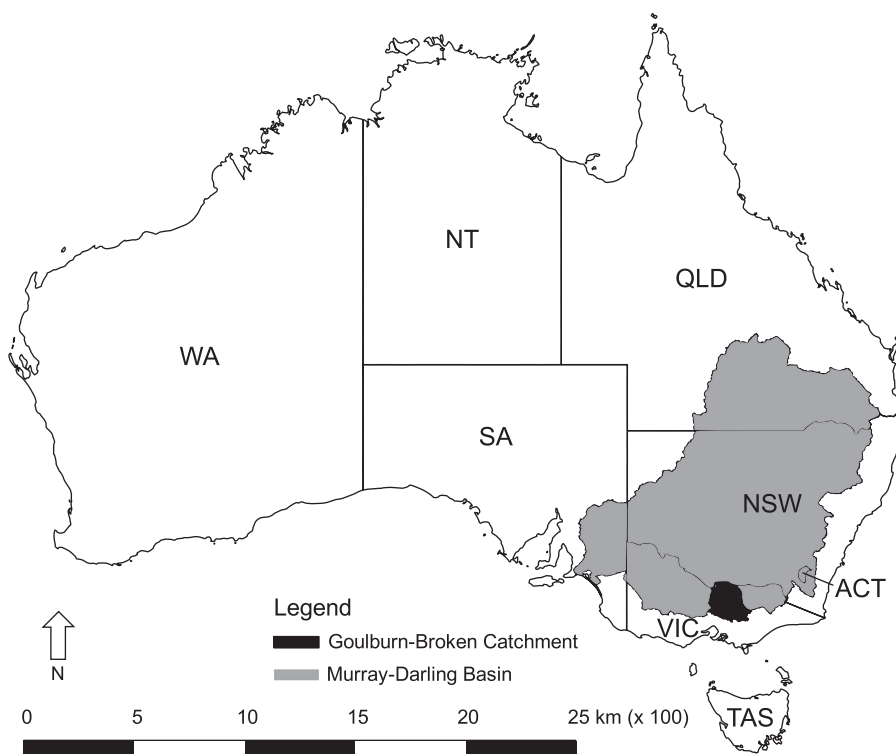E-mail address: Phil.Wallis@monash.edu (P.J. Wallis).

Fig. 1. The Goulburn-Broken Catchment, located within the Murray–Darling Basin and the State of Victoria, Australia.

involved in managing river catchments in Victoria over the past 30 years are part of the national discourse, they have not been well documented or critically analysed. Thus, this paper presents an inquiry into the history of the management of water from the perspective of a regional-level management unit in the State of Victoria, the Goulburn-Broken Catchment (GBC; Fig. 1). In this context, state-level institutions have a strong influence on regional-scale governance and were thus considered in some detail in this investigation.

In making sense of the situation in the GBC, we have drawn out some of the key historical aspects, including: starting conditions (e.g. high climate variability and low-nutrient soils); path dependencies (e.g. the establishment of irrigation districts); legacy systems (e.g. imported farming practices); and cultural differences. History also plays an important role in understanding a situation through exploration of the historically based setting, including social, cultural and institutional, that 'frames' the current situation in the GBC (Goffman, 1974; SLIM, 2004, p. 20). The GBC, a catchment of approximately 2.4 million hectares in the south-east of Australia, supports significant irrigated agricultural production and comprises a major tributary of the Murray River in the MDB. We chose the GBC as it has a rich history of water management experiments and successes, and is a well-studied example of a social–ecological system in the resilience literature (Olsson et al., 2006; Walker et al., 2009). Qualitative research with key actors in the historical situation can reveal how particular framings arose and the implications of shifts in framings.

To better understand the current situation in the GBC, we employed Ulrich's (1983, 1987, p. 279) critical systems heuristics (CSH) as a sense-making framework. CSH can help make sense of a situation through four key dimensions: (1) sources of motivation: the values and motivations built into our views and efforts to improve them; (2) control: the power structures influencing what is considered a problem and what may be done about it; (3) knowledge: the knowledge basis defining what counts as relevant

information, including experience and skills; and (4) legitimacy: the moral basis on which we expect third parties (i.e. stakeholders not involved yet in some way concerned) to bear with the consequences of what we do, or fail to do, about the situation in question.

As argued by Ison and Wallis (2011), current Murray–Darling Basin (MDB) planning reform has many of the elements of systemic failure, particularly in terms of those ingredients which contribute to an effective holistic performance in its implementation and enactment. Based on earlier research in Europe (Ison et al., 2007) we were alert during our interviews to examples of past water managing and governance that gave rise to effective performances, or 'social learning'. Social learning is a process of concerted action (or performance) that requires a convergence of understandings and practices among multiple stakeholders leading to agreement on a way to progress situations of concern within conducive institutional settings (Van Bommel et al., 2009; Pahl-Wostl et al., 2007; SLIM, 2004). Through interviews and informal discussions, it became apparent that some aspects of the Victorian Salinity Program of the 1980s, in particular the Salinity Pilot Program Advisory Council for the Shepparton Irrigation District, could be considered to be exemplars of effective participatory governance. We therefore explored the salinity program as a preliminary case study through the theoretical lens of 'social learning' (SLIM, 2004; Steyaert and Jiggins, 2007) to examine what conditions were present and whether social learning was present or not. It became apparent to us that there was significant public policy learning to be obtained from this example, leading to areas of further research and inquiry.

The overall aim of this research was to gain a perspective on the factors leading to the current set of governance arrangements for managing water by considering the history of water management in Victoria, to consider whether current arrangements are effective, and to determine whether social learning and other historical insights could be drawn upon to improve the current