



Murray-Darling Basin: Conservation and Law

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Jamie Pittock

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Abstract

Better wetland conservation law can be informed by lessons from Australia's Murray–Darling Basin. The legal character of water entitlements is critical for ensuring that water is available to adequately sustain wetlands. Better management has been informed by national harmonization of water data collection and providing public access to this information. An independent statutory manager of environmental water in the Federal Government has ensured that environmental water is protected are used to conserve wetlands. Domestic law has been considerably strengthened by drawing on international treaties, especially the Ramsar Convention on Wetlands. Overlapping roles of federal and state governments have hindered some conservation initiatives but have also ensured some level of wetland conservation continues at one level of government when the other level of government does not do so. As direct government action has become more financially and politically constrained, businesses, community organizations, and Indigenous peoples have been enabled to play greater roles in conservation of

J. Pittock (✉)

Fenner School of Environment and Society, The Australian National University, Canberra, ACT, Australia

e-mail: jamie.pittock@anu.edu.au

wetlands. This broader approach to wetlands governance has generated more innovative approaches and stakeholder support for wetland conservation.

Keywords

Australia · Business sector · Conservation reserves · Environmental law · Federal government · Indigenous peoples · Murray-Darling Basin · Non-government organizations · Ramsar Convention on Wetlands · River basin management · Water entitlements · Water law · water markets · Wetlands conservation

Introduction

Conservation of wetlands in the Murray-Darling Basin has been advanced by the evolution of environmental and water laws that have been increasingly influenced by international environmental agreements. The basin occupies a seventh of the Australian continent, nearly a tenth of this area; some 5.7 million hectares are regarded as wetlands (Kingsford et al. 2004).

The basin largely lies in the Mediterranean temperate zone and is especially prone to water scarcity, extreme events, and climate change, requiring the development of institutions for managing great hydrological variability that may hold lessons for other areas of the world (Grafton et al. 2012). As Australia has a federal system of government, lessons for wetlands and river basin governance in the basin are likely to be particularly applicable in the 28 federations globally (Garrick et al. 2013). In this chapter the history of water-related laws is outlined before focusing on recent wetland conservation initiatives, including the influence of international agreements.

Indigenous Laws and Institutions

Prior to European occupation, the wetlands of the basin were focal points in the territories and livelihoods of several dozen Aboriginal nations. One example is the Willandra Lakes World Heritage Area that is shared by three Indigenous nations and holds some of the oldest remains of human occupation of Australia (Australian Government 2002). Institutions existed that governed the extensive and sustainable use of wetland resources that are indicated by such sites as a canal to enable eel migration across catchment and permanent fish trap infrastructure (Bandler 1995; Lintermans 2004).

While the Indigenous nations were substantially dispossessed in the basin, the 1992 decision to recognize that native title remains where unbroken cultural and economic use of lands can be demonstrated, and the increasing return to and purchase of land by Aboriginal communities means that a modest but growing portion of the basin's wetlands is under Indigenous management (as detailed below). In 2004 the federal and state governments agreed in the National Water Initiative to recognize the Indigenous people's rights to water for cultural and

economic purposes (Commonwealth of Australia et al. 2004; Jackson and Morrison 2007). Although a First People's Water Engagement Council was formed to advise on implementation (First People's Water Engagement Council 2012), the definitions of cultural water needs and mechanisms to give these effects remain contested (Weir 2011).

Early European Water Laws and Institutions

The early European occupiers of Australia quickly realized that the extreme hydrological variability of the basin required new kinds of water laws. Deliberately rejecting the Western United States prior appropriation model, the Australian colonies – later states – largely adopted water use entitlement that is an annual share of the available resource (Connell 2007). When Australia federated, the management of natural resources was largely left as the responsibilities of the states, despite an ambiguous clause in the constitution preventing the Commonwealth Government from unreasonably abridging the rights of the states to the conservation (utilization) of water. The debates over sustainable management of the River Murray's waters in the federation conventions continue to this day (Connell 2007).

In 1915 the three lower basin states and Commonwealth Government formed a River Murray Commission to undertake the development of infrastructure for shipping – even then largely superseded – and irrigated agriculture. Decades later the increasing degradation of the basin's rivers and other wetlands due to water diversions was expressed through rising salinity levels, and in 1991, a 2,000 km long, poisonous cyanobacteria bloom (Bowling and Baker 1996). This was the catalyst for the Murray-Darling Basin Agreement, formation of the Basin Commission and subsidiary natural resource management programs, institutions that were based on consensus between all six states, territory, and federal governments (Connell 2007). However these initiatives failed to stem the ecological decline of the basin's wetlands, and severe drought prompted further reform in 2007–2008 (Grafton et al. 2014).

Wetland Conservation Laws and Institutions

Following the 1983 dispute over the Tasmanian state government's plans to dam the Franklin River, the federal government began using its constitutional powers to legislate to implement international agreements and to regulate trading corporations to conserve the environment (Fisher 2003). While Australia ratified the 1971 Ramsar Convention on Wetlands and nominated many sites in the basin to the Register of Wetlands of International Importance, initially they had no effective protection in domestic law. Similarly a number of migratory species agreements signaled intent but not domestic legal protection. The 1992 Convention on Biological Diversity was translated into laws at the federal level and a number of states that enabled the evaluation and listing of threatened species and also ecological communities, which

then required the preparation of recovery plans (State of the Environment Committee 2011). Many aquatic species and some ecological communities have been listed for legal protection and conservation. Threatening processes can also be nominated and listed under federal law, requiring the protection of threat abatement plans, although this mechanism has been ineffectual to date.

More effective has been the National Reserve System and Indigenous Protected Areas programs (Ross et al. 2009; State of the Environment Committee 2011), which from the late 1990s saw large areas of wetlands acquired and designated for conservation, for instance, in the Paroo River catchment. The National Reserve System program provided federal government matching funding to state government agencies and nongovernment conservation land trust groups to acquire lands containing underrepresented ecosystems for conservation reserves. For instance, Bush Heritage Australia acquired the 14,400 ha property Naree Station to conserve significant wetlands (BHA 2014).

In 1999 the Commonwealth Environment Protection and Biodiversity Conservation Act (EPBC Act) was adopted, which now names nine “matters of national environmental significance” where the federal government requires proponents of “new actions” that may significantly impact on one or more of these matters to undergo environmental assessment and approval (Australian Government 1999). This ensures a more objective assessment of proposed actions compared with those of the pro-development state governments. The EPBC Act codified many aspects of the Ramsar Convention on Wetlands in domestic law. The requirement for environmental impact assessment of new developments extends beyond the Ramsar site boundary to include actions that may significantly impact upon its ecological character, such as any new, upstream water diversions. These legal ramifications prompted the Commonwealth Government to fund proper mapping of Ramsar site boundaries, defining the ecological character of each site, as well as preparing management plans. Despite at least one outdated critique (Farrier and Tucker 2000; Blasco 2001), Ramsar listing has resulted in a renewed focus on providing modest environmental flows to the designated wetlands in the basin, including in the Basin Plan (Gardner 2012).

However, the EPBC Act also generated risk-adverse responses from the governments that has diminished potential wetland conservation activities (Pittock et al. 2010). Concern over federal government regulation of Ramsar sites has seen state governments designate fewer wetlands, exhibiting a misplaced fear since migratory and threatened species, among other matters, already enable federal regulation of new developments in most significant wetlands in Australia. After early conflicts with the states and nongovernment litigators, the Commonwealth Government administrators have also ceased to designate new Ramsar sites unless a proposal has a state government agreement, a surveyed site boundary, an ecological character description, a management plan, and an environmental flow agreement (SEWPAC 2012). In the absence of strong public support for site conservation, these exhaustive bureaucratic requirements have stalled new wetland conservation measures even though the Commonwealth Government could choose to override any state government opposition.

The EPBC Act did not legislate to implement a number of other national obligations under the Ramsar Convention, for example, establishment of a national wetlands advisory committee, nor an indicative list of sites that should be considered for Ramsar designation. Despite the EPBC and Water acts, the ecological character of a great many of the listed wetlands continues to decline (Pittock et al. 2010). While the Australian Government has reported a few of these cases to the Ramsar Secretariat as required by Article 3.2, many have not been reported (Pittock et al. 2010; Ramsar 2009). The Australian Government has also unilaterally decided not to report changes in ecological character due to climate change while at the same time funding an extensive program of “environmental works and measures” – major infrastructure intended to conserve wetland biodiversity with less water that has been questioned by academics (DEWHA 2009; Pittock et al. 2012).

The Water Act and the Basin Plan

In 2007–2008 at the peak of the Millennium Drought, the Commonwealth Government gained grudging consent from the state governments for it to regulate water management in the basin. The resulting Water Act requires the Commonwealth Government to set “sustainable diversion limits” based on best available science in a Basin Plan that is to be revised at least every 10 years (Commonwealth of Australia 2008). In large part the Water Act derives its constitutional mandate from implementation of the Ramsar Convention, migratory species agreements, and the Convention on Biological Diversity (Pittock et al. 2010). This quickly sparked a political debate as to whether the Water Act required environmental sustainability first and then optimization of economic and social welfare (a reasonable reading of the law) or whether the three objectives should be balanced, as interpreted by subsequent governments. Obtaining the consent of all the state governments to the Water Act has required the Commonwealth Government to grant more than ten billion Australian dollars, often spent in ways that economists regard as poorly targeted (Grafton 2011), as well as delaying full implementation of the Basin Plan to 2019 (Pittock 2013).

The new Murray-Darling Basin Authority has undertaken an analysis of water required to conserve wetlands throughout the system, and while it is proposed to reallocate up to 27% of consumptive water to wetland conservation in the Basin Plan (Commonwealth of Australia 2012), it is questionable where this is a sufficient volume of water. It is notable that a number of key wetland conservation issues are yet to be resolved, including the representativeness of the wetlands being watered, allocation of water to wetlands in dry years under existing state government operating rules and adaptation to climate change (Grafton et al. 2014; Pittock 2013).

The Water Act has other benefits for wetland conservation, including better data and environmental water management. Different state water accounting systems have been harmonized under the national Bureau of Meteorology, providing comparable data for better management (Commonwealth of Australia 2008; BoM and ABS 2011). The Water Act also establishes a Commonwealth Environmental Water

Holder (CEWH) to hold and manage the water entitlements acquired for the environment by the federal government through purchase and funding water efficiency savings (Connell 2011). In the past, environmental (“rule-based”) water was that left after consumptive entitlements had been allocated and this diminished significantly in dry years. With the purchase of entitlements, the water held by the CEWH (“water entitlements”) – which may eventually amount to a quarter of the environmental water – has the same legal characteristics as the water entitlements held by farmers and is less easily politically manipulated.

Increasing Influence of Nongovernment Organizations

Budget cuts and the greater politicization of water management and wetland conservation have seen governments designate fewer wetland reserves in the past decade. Instead there has been a rise in involvement of business, environmental, and Indigenous organizations in wetland governance. Businesses wanting to demonstrate their sustainability practices have undertaken some innovative wetland restoration and conservation programs, including the major wineries Banrock Station and Chateau Tahbilk. After a protracted process of gaining government concurrence, five floodplain graziers and Banrock Station had portions of their wetlands designated as Ramsar sites, partly in an effort to pressure the governments to restore adequate environmental flows (NSW Ramsar Managers Network 2010; DoE 2011).

Nongovernment environmental organizations are moving beyond acquisition of land to become involved in trading, ownership, and management of water entitlements in order to restore wetland health. The Murray Wetlands Working Group is one example of a community organization selling un-needed water and acquiring water when required, often using the irrigation canal system to water wetlands (MWWG 2014). Numerous legal and operational constraints to using water for wetlands rather than irrigated agriculture are gradually being overcome.

Indigenous communities are also reclaiming their lands as these two New South Wales examples illustrate. The property Toogimbie was acquired by the Indigenous Land Corporation (a quasi-government agency that acquires land for dispossessed communities) and returned to the Nari Nari Tribal Council. These traditional owners have designated the floodplain of the Murrumbidgee River as a 4,600 ha Indigenous protected area (DoE 2013). In 2010 the New South Wales Government accepted advice from its Natural Resources Commission for around 20,000 ha of the Werai floodplain forests and Taroo lake to be owned and managed by their traditional owners as Indigenous protected areas (NRC 2009).

Conclusions

The evolution of wetland conservation law in the Murray-Darling Basin holds a number of lessons for other places. Allocating water entitlements as a share of the available resource is key to ensuring that some water is available to wetlands in dry

years. Harmonizing data collection and public access is vital for providing information needed for better management. The establishment of a separate, statutory manager of environmental water ensures that this resource is deployed to best conserve wetlands. Bringing into domestic law provisions from international agreements like the Ramsar Convention can be used to increase wetland conservation measures. Overlapping powers between different levels of government (in this case, federal and state governments) may delay action but can also ensure additional consideration of wetland conservation where there is a pro-development government. Finally, enabling businesses, community organizations, and Indigenous peoples to play roles in wetland governance achieves more than governments will alone, enables innovation, and creates new constituencies for wetland conservation.

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