Gwydir

Summary of basin characteristics

The 200,000ha Gwydir wetlands are a terminal inland delta of the Gwydir River. These ecologically important wetlands lie in the heart of one of Australia’s largest agricultural areas, and have been suffering for the past 20 years due to water extraction for irrigation, most notably for cotton growing.

The Gwydir River forms part of the Murray-Darling Basin which drains approximately one-seventh of the landmass of Australia. Central to this case study are the floodplain wetlands located along 95km of the Gingham and Lower Gwydir watercourses west of Moree in northern New South Wales.

Socio-economic importance

Following completion of Copeton Dam on the Gwydir River in 1976, irrigation schemes grew rapidly to the point where demand outstripped the capacity of the dam by almost one-fifth. The upstream diversion of water for irrigation had a significant effect on downstream pastoralists, whose grazing productivity declined by up to 73 per cent. The drying-out of wetlands also saw a marked increase in cereal cropping on these areas, resulting in further wetland loss.
**Biodiversity values**

The Gwydir wetlands provide breeding and feeding grounds for very large numbers of colonial waterbirds (ibis, egrets and herons). Altogether, 165 bird species have been recorded breeding there. Following floods in August 1998, over 500,000 waterbirds nested in the wetlands. Species listed under the China-Australia and Japan-Australia Migratory Bird Agreements occur in the Gwydir wetlands, as do several species listed as Endangered or Vulnerable in the state of New South Wales (NSW).

**Priority issues for river basin management**

River regulation and the subsequent increase in water extraction brought about a dramatic decline in breeding bird numbers, in line with the reduction in wetland area. Alterations to the frequency and duration of floodplain inundation also led to changed vegetation patterns, with many areas that previously supported native species being taken over by invasive plants such as lippia *Phyla canescens* and water hyacinth *Eichhornia crassipes*.

In October 1995, the NSW state government implemented interim environmental flow/water-sharing rules to maintain the wetlands and support general improvements to the health of the catchment. These rules were designed to achieve a balance in the way water is apportioned among users, including the environment, and in turn force some sectors to find greater efficiency in their water use. The benefits were observed almost immediately, with three subsequent flooding events resulting in major waterbird breeding success. The subsequent joint action taken by four farming families on the floodplain, to list their combined wetland area of nearly 1,000ha as a Wetland of International Importance under the Ramsar Convention, has served to reinforce the value of water sharing between consumptive uses and the environment.

**Role of WWF and its partners**

The action taken by these farming families on World Wetlands Day (2 February) 1999 to secure Ramsar listing for their properties was the first time that such an initiative had been taken by private landholders in Australia. Working together, WWF and the National Parks Association of NSW facilitated this process over nearly three years of consultation.

Shortly after Ramsar Site status was achieved, the Australian federal government introduced new legislation, the Environment Protection and Biodiversity Conservation Act 1999. WWF helped to negotiate this significant piece of legislation. The Act established certain threatened species and areas, including Ramsar Sites, as being of ‘national environmental significance’. For Ramsar Sites, the legislation promotes the development of management plans to meet a specified standard and that these plans should be directed at maintaining the ‘ecological character’ of the wetland (as required under the Ramsar Convention). In order to address these legislative requirements, and also provide for coordinated and cohesive management, a Memorandum of Understanding (MoU) was negotiated and signed by the private landholders, the two tiers of government (state and federal), WWF and the National Parks Association. This established agreed management principles and objectives, clarified responsibilities and put in place an agreed conflict resolution process should disagreements over management arise.

**Conservation method demonstrated**

On paper at least, this Ramsar listing and the accompanying MoU secured an environmental flow allocation for the wetlands despite the significant other demands for water in the catchment. The MoU states that: “Both governments [state and federal] remain
committed to maintaining appropriate hydrological regimes in the Gingham and Lower Gwydir Watercourses, particularly the provision of adequate, ecologically appropriate environmental flows to the wetlands.”

A ‘win-win’ outcome should be possible through this process, with the wetland of international importance for waterbirds protected and guaranteed water. This same water also supports the ongoing commercial cattle-grazing operations of the private landholders. With the entry into force of the Environment Protection and Biodiversity Conservation Act, the farmers now have legislative support for ensuring that their wetlands are cared for and receive the water they require. The interim environmental flow/water-sharing rules adopted in 1995 remain in place, pending completion of the more formal Gwydir Water Sharing Plan. This plan is presently in development and is expected to recognize the commitment given in the MoU (as quoted above). Failure to meet this obligation will place Australia (both the federal and NSW state governments) in contravention of their obligations under the Ramsar Convention. It will also create a situation where, technically speaking, the new federal law should be triggered to ensure that the ‘ecological character’ of the Ramsar Site is maintained.

**Chronology**

1994-1995

- The first discussions of possible Ramsar listing of the Gwydir wetlands take place, undertaken by the NSW National Parks and Wildlife Service (NPWS). Following this, WWF and the National Parks Association (NPA) form a partnership, supported by federal government funding.

1998

- June: informal consultative group established, including interested landholders, an independent wetland ecologist, regional and head office staff from NPWS, Environment Australia (the environment department of the federal government), and staff from NPA and WWF. After identifying the important wetland areas, a discussion paper is prepared and relevant landholders invited to a first meeting; this undertakes a ‘strengths and issues’ analysis, the outcomes of which are used to guide development of management principles and conditions.

1999

- WWF and NPA seek legal advice from the (non-governmental) Environmental Defender’s Office and a further meeting is held to consider the advice obtained and the draft Memorandum of Understanding. As the draft MoU is developed further, legal advice is sought from government sources, and the Gwydir River Management Committee is consulted about the implications of Ramsar listing. The committee endorses Ramsar listing in principle, and supports the landholders seeking to list wetlands on their properties. This advice is communicated to the NSW Minister for Land and Water Conservation.

- December: third meeting held involving the consultative group, as well as senior staff from the Ramsar Bureau, Environment Australia, NPWS, WWF, and NPA. Discussions include Ramsar listing at the international level and its implications. Further omissions from the MoU are identified and rectified, and the revised MoU is circulated for final comment. Following this, the landholders seek their own independent legal advice.

- January: final comments incorporated and a decision to proceed with listing is made by the landholders.

- February (2nd): MoU signed on World Wetlands Day, committing the signatories to the preparation of a range of management plans covering both property and wetlands; it also establishes a management committee to coordinate and monitor implementation of the MoU.
Resources devoted

It is not possible to quantify the full resource allocations made by all the players involved since 1994/95. WWF’s role has been continuous and has grown from part-time to full-time staff allocation. Financial support came from a range of sources, as did assistance with the logistics associated with consultations. It is estimated that it cost WWF and the NPA around US$19,500 per year to secure the agreement. This included a part-time project officer who worked with other partners. The involvement of senior government officials at key moments in the process was also important. Above all, it should be acknowledged that the landholders themselves had to make significant commitments of time and other resources to bring the Ramsar listing to fruition. Their commitment is ongoing since they are now the acknowledged custodians of a Wetland of International Importance.

Postscript

One of the landholders has since sold their Ramsar-listed property and the new owner has carried out some earth-moving activities which may have altered, or could lead to an alteration in, the ‘ecological character’ of the site. The matter is under review by the relevant authorities. This action, should it prove to have significantly changed the Ramsar values of the site, is most regrettable, but does in itself offer some lessons. The long-term success of this Ramsar listing is dependent upon there being suitable management planning frameworks in place, and a functioning and effective management committee. Questions are now being asked about the effectiveness of these. It would also seem that little or no assistance to the farmers involved has been forthcoming from the government signatories to the MoU. This being the first private landholder-initiated Ramsar listing in Australia, there were certain to be some ‘teething problems’. This has now been recognized by all involved and steps to resolve the problems are expected in the near future.

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Irrigated farmland in the Gwydir wetlands.
WWF / Jamie Pittock
Lessons learnt

1. It is important to have an ‘honest broker’ in processes attempting to secure significant conservation outcomes among private sector stakeholders
   This was vital in terms of creating a bridge (and translation service) between the workings of an international convention, federal and state-level government policies and systems, and the day-to-day realities of the private landholders involved.

2. The Ramsar listing was made possible, in large part, through the trust that was developed between the landholders and the WWF project officer
   The project officer was able to facilitate a way forward for the private landholders with the state and federal government departments that had previously viewed Ramsar listing as something reserved for public lands. In the Australian context this Ramsar listing was therefore a landmark, a pioneer in terms of the paradigm shift it signalled. Since it took place, there have been two further cases of private landholder Ramsar listings in Australia and others are expected in the near future.

3. Protected area designations can have major benefits beyond their boundaries
   Through the advocacy role played by WWF and the National Parks Association, Ramsar listing was recognized in government circles as a wider river basin management tool, with conservation benefits reaching beyond the boundaries of reserves and other traditional protected areas. It also allowed some recognition of the fact that farmers in Australia are increasingly embracing a sustainability ethos for their activities. Many, such as the farmers in this case, are responsible land stewards who understand the need for and value of maintaining biodiversity on their land. These same farmers have been grazing parts of the Ramsar-listed area in a sustainable manner for decades and are continuing to do so today in a way consistent with the Ramsar ‘wise use’ principle.

4. Gaining formal recognition of the biodiversity values of a floodplain area, whether through Ramsar listing or some other mechanism, can provide leverage within catchment or river basin management frameworks for maintaining appropriate water allocations and flow regimes
   In this case, the water allocation is (in theory) guaranteed by federal legislation which seeks to ensure that the ‘ecological character’ of the Ramsar Site is not compromised. While the provision of the necessary flows is being negotiated through the Water Sharing Plan, the landholders have a formal document signed by ministers from both state and federal governments pledging their commitment to seeking a successful outcome. If the process fails to deliver an environmentally satisfactory result, then the appropriate response would be for the Australian government to include the site in the Ramsar Convention’s ‘Montreux Record’ of sites undergoing, or expected to undergo, a change in ecological character.

Additional lessons learnt

5. Identify the strengths of different partners, issues of importance to each, and determine points of consensus

6. Determine land tenure early in the process

7. Determine government processes, and potential barriers, as early as possible

continued overleaf...
Lessons Learnt, continued

8. Identify the chain of command in all relevant government agencies

9. Do not presume all the landholders or agency staff know or like each other

10. Cater for a range of technical and other knowledge

11. Prepare for and monitor frequent changes in government agency staff

12. Consult in and out of formal meetings, in small groups and one-to-one

13. Be prepared to consult landholders outside their normal business hours – for example, early in the morning, at lunchtime, and (sometimes late) in the evening

14. Circulate draft documents and other information widely

15. Be aware that there is likely to be a language (e.g. terminology, acronyms) barrier between bureaucrats and farmers, and that the ‘honest broker’ has to help each to communicate with the other