



INLAND RIVERS NETWORK AND NATURE CONSERVATION COUNCIL OF NSW

SUBMISSION TO

**NWI 2011 BIENNIAL ASSESSMENT OF PROGRESS
IN IMPLEMENTATION REVIEW**

THE AUTHORS

This is a joint submission from the Inland Rivers Network (IRN) and the Nature Conservation Council of NSW (NCC), collectively termed '*the Groups*' in this submission. The comments draw on a number of contributions from well informed members involved in our respective organisations.

INLAND RIVERS NETWORK

The Inland Rivers Network is a coalition of environment groups and individuals concerned about the degradation of the rivers, wetlands and groundwater of the Murray-Darling Basin. It has been advocating for the conservation of rivers, wetlands and groundwater in the Murray-Darling Basin since 1991. Member groups include the Australian Conservation Foundation; the Nature Conservation Council of NSW; the National Parks Association of NSW; Friends of the Earth; the Coast and Wetlands Society; Central West Environment Council and The Wilderness Society Sydney branch.

NATURE CONSERVATION COUNCIL OF NSW

The Nature Conservation Council of NSW (NCC) is a non-profit, non-government organisation. For more than 55 years, it has successfully responded to the critical threats to NSW's environment through a statewide network of more than 100 member groups, staff and volunteers. The Nature Conservation Council aims to conserve nature and protect the water we drink, the air we breathe and the places we love.

INTRODUCTION

IRN and NCC welcome the opportunity to make this submission, which commences with a number of general statements and then follows the subject order of the NWC Discussion Paper for ease of reference. There then follows a closing statement.

It must be said that this submission is constrained by the lack of resources of IRN, NCC and their member groups, and this in itself is an inequality that we would like to bring to the attention of the NWC, especially in the context of the politicisation of the MDBA consultation process that is currently under way. We note the large sums of money reported to have been spent by various organisations on Public Relations Companies' campaigns to resist water reform.

GENERAL STATEMENTS

IRN and NCC recognize the efforts and achievements of the National Water Commission (NWC) to date. We are encouraged by the significant progress that has been achieved in the implementation of the National Water Initiative, mostly with respect to the Murray-Darling Basin (MDB) over the last two years. In particular, the body of scientific knowledge that has been amassed deserves recognition.

While the MDB remains the main focus of the work of IRN at present, and the NCC has a NSW focus, the Groups also recognize that the water reform achievements that occur within the MDB may become the blueprint for policy reform in other areas of Australia, and we strongly encourage the NWC to remain broadly conscious that the NWI is a commitment of Australia's governments to manage Australia's entire water resources. It is very important to transcend fragmented State and Territory water policy and implementation, which has contributed to environmental degradation resulting from over allocation of water resources in the past.

The volume of scientific data that has been produced by the CSIRO in its flagship studies and other programs places the NWC in a unique position. In the past many poor decisions have been made with respect to Australia's water resources out of ignorance stemming from lack of research, with devastating consequences for the Nation's natural resources. There is broad consensus that the knowledge that the NWC now has available is of the highest quality, and we ask that the impetus is maintained in promoting and continuing such research in all areas, particularly in regard to water quality and groundwater systems.

In contrast, both IRN and NCC have observed that the methodology used for seeking community input and support for reform has been gravely inadequate. Furthermore, where good community consultation has occurred, e.g. the Basin Community Committee, the valuable input of members has been largely sidelined, if not ignored. We strongly encourage the NWC to catalyse a greater investment in social science methodology.

WATER PLANNING

The most pertinent element of water planning currently is the establishment of the Sustainable Diversion Limits for the MDB. Our detailed comments on this will be found under the *Addressing Overallocation and Overuse* heading below.

IRN and NCC are concerned that the interests of Indigenous Australians have not been adequately considered in water plans. Although the Groups and others have made this comment before, this is again most clearly demonstrated by the MDBA Guide to the Proposed Basin Plan. Mechanisms and approaches used to date for consultation and engagement of community members are not appropriate or effective for Indigenous Australians. Given the cultural significance of water to Aboriginal communities substantial effort is required to develop effective techniques for dialogue and discussion of water planning and to identify cultural uses at the local level. In fact much of the consultation effort at state level in NSW seems focused on rural consumptive water uses.

The Groups remain very concerned that few Water Sharing Plans include adequate strategies for adapting to climate change. This is of gravest concern in the utterances of the MDBA – see below under environmental water.

The Groups remain concerned that the *implementation* of the *NSW Water Management Act 2000* is not capable of achieving the objectives and outcomes of the NWI. Since this Act provides a legislative framework for the establishment of water sharing plans (WSPs) and Macro Plans in New South Wales, this shortcoming is critical to the NWI. We refer the NWC to the joint submission made to the Department of Natural Resources by IRN, NCC and the Australian Conservation Foundation (ACF) in response to the NSW Implementation Plan for the NWI.¹ In particular we reiterate that the lack of consultation was a grave concern. Exclusion of environmental advocates from consultation is completely unacceptable in the 21st century.

Furthermore, the Groups are very concerned at the current proposed amendments to the *NSW Water Management Act 2000*. A significant part of the legislation is the requirement for mining to have a water licence for any interception of water, which we endorse. Mining interception, however, has consistent requirements, i.e., they will need high security water. The only water consistent with this type of entitlement is town water supply or electricity generation. That water is held by local water utilities or major utilities. We envisage potential problems with major utilities being able to trade water savings as Special Purpose Access Licences. This could involve a very high proportion of water in the Hunter and the Hawkesbury Nepean. There is ready potential for conflicts of interest to arise with the NSW Government's Gentrader process.

¹ Available via the IRN website, under Submissions and Articles at www.irnsw.org.au

No doubt there are similar anomalies in other States' legislation and we exhort the NWC to maintain extreme vigilance in these areas.

SURFACE WATER AND GROUNDWATER CONNECTIVITY

There is a widespread and demonstrable failure to factor in surface-groundwater connectivity in water planning. This continues despite the significant further work in this area undertaken recently by the CSIRO and others. Both IRN and NCC acknowledge there remain many gaps in our understanding of the connectivity relationships. This emphasises the importance of applying the precautionary principle. Meanwhile the Groups call for research and clear identification of those poorly understood systems prior to entrenching commitments in surface and groundwater plans that would compromise the objectives of the NWI.

WATER ACCOUNTING AND WATER DATA

From experience across the MDB, the Groups confirm that metering, compliance and enforcement arrangements are still largely inadequate. In particular, in the context of uncontrolled interception, it needs emphasizing that water can be managed effectively only when *all* significant consumption is measured and formally allocated.

Compliance and enforcement programs in water management still seem poorly developed and lack a professional enforcement ethic probably due to historical stakeholder relationships. It may be worth examining the effectiveness of compliance programs in water management across the nation to assess impediments.

There remains inadequacy and inconsistency between the States' data and modeling approaches despite the good work that the NWC has done to develop standards for water accounting. We exhort the NWC to bring pressures to bear to rectify this situation.

ENVIRONMENTAL WATER

Primarily IRN and NCC would like to emphasize the importance of the goods and services that are provided by healthy ecosystems, and the costs incurred when ecosystems are allowed to degrade. A very significant body of work has been done in the last few years, both internationally and in Australia, to put financial value on the essential roles that healthy ecosystems fulfill. Loss of diversity and resilience in ecosystems sees a measurable reduction in the functions that they provide to our communities. We make this assertion because it has been traditionally, and often remains ignored in the discussions about water management. Environmental water is obviously one of the most critical ingredients for healthy ecosystems.

The low security of environmental water in all of the Eastern States is of the gravest concern to the Groups, and we press the NWC to pursue this issue most vigorously.

IRN and NCC further stress here the importance of adaptive environmental management, which is reinforced by climate change predictions. With the increase in relevant scientific data in the last few years, it is imperative to develop management systems and capabilities that build on this knowledge to apply the delivery of environmental water to give best results. Fully developed watering protocols must be used to achieve clearly defined environmental objectives. Currently this element is at best very immature, with monitoring generally inadequate and triggers generally absent. There exists some good protocols in the MDB, and the Groups encourage the NWC to proliferate such best-practice protocols.

Consequent to this, the role of the environmental water managers is an essential key to the success of a return to sustainable water resources. IRN and NCC strongly support the general proposal that there be coordinated management of environmental water, with input from local catchment groups. The Groups stress that coordinated central management must draw on the biological and hydrological expertise within locally based environmental agencies, and the environmental water managers must be empowered to make use of that expertise to best effect. This will require clear definition of role and authority and adequate resourcing. The environmental water managers should not be set up with insufficient resources to be effective, nor should their roles be compromised by other conflicting responsibilities.

Both Groups would like also to emphasise the importance of water quality. This is often overshadowed by discussions of water quantity. Temperature of water releases from dams, quality of recycled water around urban areas and processed water from mining activities will, with current trends, all show increasing impact. With the recent heavy rains and flooding, the issues of soil salinity and acidity with rising water tables will again become more critical to communities.

IRN and NCC are most concerned at the lack of progress in re-establishing free passage for fish and other aquatic species in the rivers of the Eastern States. There is a perception that a reluctance to collaborate amongst agencies has been a contributing factor in the minimal positive change in freeing up fish passage. The Groups exhort the NWC to pay greater attention to this critical environmental issue.

The Groups point out that the NWI has not yet addressed the timing of flows along rivers. The pattern of demand for water by irrigators and most of the supply of water from dams has changed the flow regime of rivers. Especially in the southern portion of the Murray-Darling Basin, high flow rates have moved from winter/spring flows to spring/summer flows.

This changed flow regime has reduced the capacity of native fish to compete with introduced species such as carp, while the wetting of soils underneath dry surface soils induces bank slumping.

The NWC should examine how best to reduce summer demand for water. For example, the consideration of whether the cost of water delivered in summer should attract a premium.

ADDRESSING OVER-ALLOCATION AND OVERUSE

The activity of the Murray-Darling Basin Authority, particularly through the Basin Plan, is easily the greatest program undertaken to address over-allocation and overuse of water resources and the consequent environmental degradation. The scientific research that has been done on the MDB catchments, and the proposed Basin Plan being produced by the MDBA are heralded widely as World-best-practice. The NWC has clearly expressed its opinion that the MDBA plan may be used as the blueprint for the remaining areas of Australia. With this in mind, the Groups would like to take this opportunity to bring to your attention the main elements of our disappointment with the performance of the MDBA. These elements have been submitted to the MDBA.

1. The failure to communicate adequately the benefits of achieving sustainable, healthy rivers and wetlands and the process for achieving this to date through voluntary water buybacks and investment in improvements to irrigation infrastructure. The Federal Government is adamant that all purchases will be from willing sellers. The MDBA has failed dramatically to make this very simple connection clear to those attending its consultation meetings, just as it has failed to demonstrate that dead rivers and degraded wetlands will provide no support to agriculture nor the environment in the future – the possible status quo scenario.
2. The failure to use best practice methodology for engaging communities of MDB in contributing to the draft Plan. There are a number of successful models for consulting with, and consequently engaging regional communities, for example the Landcare model. Remote centralisation by bureaucrats does not work well with many rural communities. For an example of the ability of regional communities to find solutions, see the Campaspe and Torumbarry Irrigation Districts Plans.
3. The singular framework in which the MDBA has presented the *Guide to the proposed Basin Plan* – i.e. as consumptive water reduction alone, rather than in the context of building resilient and sustainable communities into the future. In addition to Water for the Future, current Australian Government investment in regional Australia includes:
 - \$200 million Strengthening Basin Communities program is helping local governments in the MDB plan for reduced water availability;
 - \$800 million in a new Priority Regional Infrastructure Program to fund projects identified by local communities;

- Regional universities and TAFEs will have access to \$500 million from the Education Investment Fund;
- \$1.8 billion Regional Priority Round from the Health and Hospitals Fund to build and upgrade regional health infrastructure and support clinical training capacity in regional hospitals

The benefits of these and other Australian Government investments in supporting social and economic adjustment to a strong Murray-Darling Basin Plan should be heralded by the Authority.

4. While scientific work has very clearly identified the over-allocation and overuse in each of the catchments of the MDB, the likelihood of them being addressed adequately seems small, given what has been seen in the *Guide to the proposed Basin Plan*. The very inadequate socio-economic research (by Marsden Jacobs) has been used to limit environmental outcomes of the draft Plan by considering only to aim for an overall reduction of 3,000 to 4,000 GL/y in diversions. Of the MDBA's admission in the Guide, this relies on a long-term return to wetter climatic conditions across the Basin, in complete defiance of the climate change predictions. In the consultation meetings, the MDBA is openly skeptical of climate change to the public. The science indicates that nearer 7,600 GL/y is needed to return all valleys to sustainable levels. This is an outcome proscribed by the *Water Act 2007* (Cth).
5. The very minimal and inadequate consultation methodology accompanying the *Guide*. The MDBA has allowed a tiny but very well-funded minority, employing a top PR company, to completely dominate the open meetings. The first principle that policy development must be independent of politics has been abandoned. Interestingly two current Polls (Auspoll and Basin Pulse) both indicate that despite the dominance of an intimidating minority at the consultation meetings decrying the reduction in consumptive water, the majority of the Basin community (75%) continue to want water reform, they continue to see it as urgent (62%) and they believe that it will happen (60%).
6. The willingness of the MDBA to encourage the public at consultations to 'question the science', then to allow many unsubstantiated opinions to blend into perception of 'fact' by failure of the Authority to refute these opinions. This is very poor communication technique and obviously very damaging in the process of explaining the connection between overallocation and remedial action.
7. The failure of the MDBA to adequately present current levels of buybacks during consultation meetings. This creates an exaggerated picture of the amount of water still to be taken from the consumptive pool. Between 30% and 40% of the proposed reductions has already been purchased by the Federal Government, yet this is not

communicated.

In summary, if this is the blueprint for the rest of Australia, there is a very great deal of work to do on methodology before wider implementation.

WATER ENTITLEMENTS

The *Water Act 2007*, and hence the *MDBA Guide to the proposed Basin Plan*, work on the basis of long term averages which is deeply flawed in long dry periods when a 'double drought' effect applies (natural and man-made).

As previously stated, the low security of environmental water in all the Eastern States is of the gravest concern to IRN and NCC, and the Groups press the NWC to pursue this issue most vigorously.

The Groups are also increasingly concerned at the slow progress in addressing interception activities, particularly those involving land use changes (e.g. plantations), in water accounting, and urge the NWC to act on this anomaly.

The concept of water access entitlements must always be defined in terms of a share in water, not in terms of volumes of water. There must remain the assignment of risk of future changes in water availability, particularly given climate change predictions. Differences in allocation policies between States, particularly within single catchments, must be eliminated, and entitlements considered on a catchment basis.

WATER MARKETS AND TRADING

Both IRN and NCC applaud the buyback of water from willing sellers by the Federal Government. However, there is need for a broad strategic approach to be articulated in order to ultimately achieve the intended environmental outcomes.

The 4% cap on trading out of an irrigation area is seen as an unfair impediment to willing sellers and to the buyback process. The justification for privatising water licences and separating them from land in the NWI agreement was to generate free market forces for water trading. Having restrictions around purchases for environmental water is contrary to this agreement.

The dependency on infrastructure investment to achieve significant water savings to meet environmental water needs is questionable and an alternate strategy may well be needed. If the NWC or MDBA have data to demonstrate where these savings could be achieved it would be advantageous to make this information public to enhance credibility and broader community understanding.

There is a long history of funds being set aside to assist farmers become more efficient in their water use at property level with little to be shown for the money invested to date since 1995 water reforms.

PRICING AND DEMAND MANAGEMENT

The Groups strongly support the pricing of water to reflect fully the cost of provision including capital cost of infrastructure, maintenance, supply, administration and effective management of environmental impacts of water use. In combination with water trading, cost-recovery pricing will encourage the shift towards optimal use of water to maximise economic, social and environmental outcomes. Cost-recovery pricing of water will encourage continued innovation in water technology and will help to drive effective recycling. However the present cost of recycling in urban areas (as assessed by Sydney Water) is proving a disincentive to construct recycling schemes thus impeding effective integrated water cycle management. Without subsidisation recycled water is far more expensive than alternative supplies and this calls for some innovative thinking in terms of economic instruments or incentives to encourage recycling.

All major urban water utilities have extensive demand management programs in place, and the Groups believe that these programs are also needed by regional towns and cities in the face of variable water availability resulting from predicted climate change. That said, IRN and NCC would like to recognize clearly that the urban and industrial use of water (~2000 GL/y) is less than one fifth of the irrigation consumption (around 11,500 GL/y).

OTHER POLICY INITIATIVES

River and aquifer protection requires a range of tools reflecting the complexity of the issues facing riverine ecosystems. Many are catchment-wide issues that need to be dealt with through broader scale planning and regulation of water management. Developing a system of protected, high-conservation value areas is an essential element in a good planning framework and would provide in-situ protection from externally driven problems, as well as an opportunity to strengthen broader catchment management tools. A system which recognises and incorporates a range of values, from cultural to environmental, also encourages local stewardship and attracts investment into regional communities for example through tourism, co-management by government and communities, regional development and new jobs.

URBAN WATER

Neither Commonwealth nor State governments have sustainable population policies in place, and without these, the urban demand for water will increase unfettered. CoAG needs to recognise the demands made on all natural resources, particularly water, until a sustainable population strategy is implemented. All urban water utilities have extensive demand management programs in place, and these are also needed by regional towns and cities.

The Hawkesbury–Nepean River system in NSW remains a highly stressed river that will continue to degrade without more effective catchment and water management practices.

The Groups are concerned by the proliferation of desalination plants in coastal cities. These plants are high cost and have high energy demands - IRN and NCC encourages the NWC to seek cost-effective alternatives to provide security and confidence for increased future urban needs. The disparity between the cost of irrigation water and the true cost of desalinated water is unacceptable.

Another concern is the impact of desalination plants on the demand management programs - a rain independent water source for urban users is in danger of undoing behavioural changes in reducing water use already achieved under demand management programs.

A key issue to improving water sensitive urban design in well established urban centres is the cost of retrofitting existing buildings and reticulation systems. This could achieve huge water savings in cities such as Sydney if incentives could be developed to encourage this investment by property owners.

Stemming from the above IRN and NCC urges the NWC to encourage increased funding for innovative urban water management programs, such as Monash University's Centre for Water Sensitive Cities.

CLOSING STATEMENTS

In closing, both IRN and NCC would like to strongly encourage the Commissioners to continue their good work in this essential role of driving vision at the highest national level with access to the highest echelon of decision-makers.

In this context we make the following general comments:

The Groups consider it absolutely imperative to avoid further amendments to the *Water Act 2007* to enable dilution of the *Act's* environmental objectives.

The 'National Interest' proscribed by the *Water Act 2007* must prevail, and the jockeying by the States to get better deals must not be at the expense of the overall outcome.

The Australian Government deals with climate, energy, water and food in separate departments, with isolated policy development. Yet the inter-dependence of these elements is all too obvious, as is particularly clear in regional Australia. The Groups urge the NWC to work on this anomaly.

We believe that there exists a clear imperative for leadership from the NWC and the Commonwealth Government to support resilient and sustainable regional communities into the future.

Finally, the Groups recognize that it will be easy for the recent rain events and consequent vegetation and fauna responses to mask the damage of the excessive long dry. The NWC must keep in mind the reality of rainfall variation and climate change projections and acknowledge that the environment suffers prolonged drought because of over extraction during medium and low flow seasons.

The Groups look forward to the opportunity for ongoing contributions as the debate on water reform matures.