



Australian Government
National Water Commission

10 years of water wins

Australia's National Water Initiative



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10 years of water wins

Australia's National Water Initiative

The years leading up to the historic signing of Australia's 2004 national water reform pledge — the *Intergovernmental Agreement on a National Water Initiative* — were marked by a series of confronting water challenges.

Water demand was rising, testing the capacity of our water systems and the resilience of our environmental assets. Our national water infrastructure was ageing, with inadequate resourcing for upgrading. Inefficient water use and uncertain water rights were seen as inhibitors to growth, impeding economic productivity.

Federal, state and territory governments sought to find solutions to these many challenges when they signed the National Water Initiative. This was a landmark Council of Australian Governments (COAG) agreement.

For the first time, all governments collectively agreed to a set of principles and detailed water reform actions with the aim of achieving economic, social and environmental outcomes in the nation's best interests. They also agreed to create a new independent body—the National Water Commission—to oversee reform actions.

At its heart, the National Water Initiative sets out the basis on which surface water and groundwater resources are to be shared to support resilient and viable communities, healthy ecosystems and economic development.

The initiative did not emerge in a vacuum, nor is it the sole mechanism for cooperative action on water issues. It built on earlier intergovernmental agreements and was supplemented by further reforms such as the 2007 Water Act, partnership agreements between the Australian Government and individual states, and significant program investments.

Ten years since the National Water Initiative was first signed on 25 June 2004, Australia has come a long way

on the water front. The initiative forged a national—and bipartisan—approach to the way Australia manages, measures, plans for, prices, and trades water. By putting a real value on water as a resource, water was repositioned as an economic enabler that has delivered sustained productivity gains for rural and urban Australians.

In the National Water Initiative, we have a policy framework that is admired around the world. Here in Australia, the agreement helped us survive the Millennium Drought, albeit not without some tough lessons along the way.

This commemorative and celebratory book highlights significant benefits that have been achieved in meeting the National Water Initiative's commitments—benefits that have flowed to individual water users, communities, industries and the environment.

Some important actions from the initiative remain unfinished. These will only be achieved if governments stay the course on their water reform commitments.

Although the full extent of the National Water Initiative's aspirations is yet to be realised, we have a framework that 10-years on, is proven and robust. Its enduring principles will serve Australia well into the future as we face emerging water risks and pursue new water opportunities.

Karlene Maywald

CHAIR, NATIONAL WATER COMMISSION

25 June 2014



Securing water

rights

Once water users have a legally-defined share of water that is safe from government interference, illegal take and arbitrary change, it becomes a financial asset. They can then use it in much the same way as they would use land: buy and sell it, mortgage it, borrow against it, and use it to invest.

During the 1990s, Australia's states and territories had begun the legislative process of separating water access entitlements from land titles to allow them to be traded independently. However, water users still faced uncertainty around the reliability of these rights.

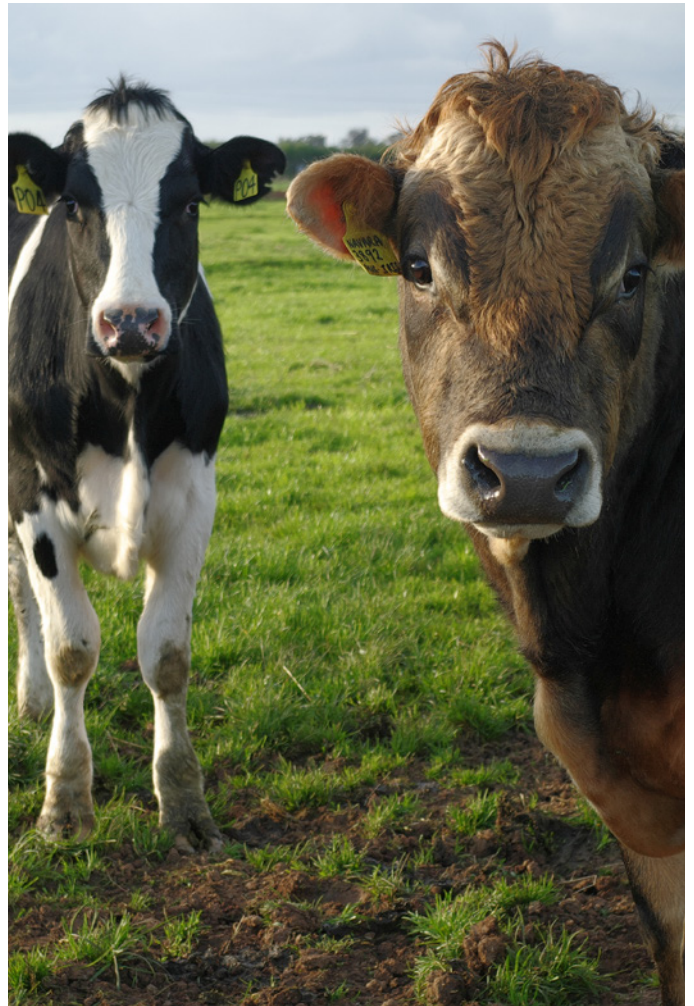
Water entitlement reform was a fundamental building block of the 2004 National Water Initiative. The agreement established a property right to water which is a share of the available resource. It required governments to improve the security and commercial certainty of entitlements by documenting how water users would bear the risks of reduced entitlements if water became scarce.

Together with improved water planning arrangements, the assignment of clear water property rights has provided a platform for the growth of water trade and the recovery of environmental water.

Ten years later, entitlement holders have increased access to business finance and more flexibility in how they manage their water assets. This has made investment in water efficiency measures more cost-effective and provided flow-on benefits for communities.

Each state and territory government has a water register for recording water access entitlements, including ownership details and transactions.

A nationally consistent approach to compliance and enforcement is helping to protect the security of our water resources and instilling greater confidence for entitlement holders.







Listening to Indigenous *voices*

Indigenous Australians have managed their lands and waters sustainably for thousands of generations. Through their spiritual, cultural and customary connections to the landscape, they have developed a deep knowledge and understanding of Australia's water systems.

Until recently, opportunities to incorporate this knowledge into Australia's water management revolution had largely been overlooked. So too had been gaining an understanding of how access to water resources for cultural and economic purposes can underpin Indigenous Australians' wellbeing.

The National Water Initiative is Australia's first national agreement that explicitly recognises the interests of Indigenous people in water management. Since it was signed in 2004, most Australian states and territories have at least begun to seek ways for Indigenous water aspirations to be heard.

In some states, there is now a legal requirement to have Indigenous representation on water management committees. Indigenous-led organisations have also emerged to drive progress on engagement in water policy and planning.

Across Australia, states and territories have started to gather information on water-dependent cultural values, to monitor and review water sharing plans, to develop cultural access licences, and to improve their understanding on Indigenous water matters.

Some water planning processes have attempted to define "cultural flows", some regions have explored the merits of Indigenous water reserves, and in certain cases, legislation has allowed traditional owner groups to take and use waters for traditional purposes.

Some Aboriginal agencies have even commenced trading in the water market as they explore a new mechanism for protecting their cultural and ecological resources, while delivering economic outcomes.



Photographs (from left to right): Bathurst Island waterhole – Samanti de Silva.
Brewarrina fish traps – Bill Strong.

Trading *up*



Water markets enable scarce water resources to be efficiently allocated between competing uses, without government intervention.

While water trading existed before the National Water Initiative, it was largely limited to the Murray–Darling Basin and its ability to operate freely was less than ideal.

By signing the initiative, governments agreed to create and facilitate efficient water markets, within and between states and territories. In meeting these commitments, water markets have expanded across connected valleys and borders.

Many artificial barriers to water trade have been removed, publicly accessible water registers have been set up, and better transactions systems are now in place.

With the opening up of trading, irrigators and other water users can now move water to higher value uses, particularly when water is scarce. This has generated economic gains at the community, regional and national levels, and proved vital during the Millennium Drought.

The ability to trade water separately from land has given water users flexibility that was not previously available. It is now an essential mechanism deployed by irrigators to optimise their water use and modify production decisions in response to changing water availability, commodity factors, and their own business objectives.

Water trading has also created a means for recovering water for the environment and has allowed the transfer of significant volumes of water to environmental managers.

Today our water markets are internationally recognised as an Australian success story. The overall turnover in Australia's water markets peaked at more than \$3 billion during the drought, and trading now generates annual economic benefits valued in hundreds of millions of dollars.

A photograph of a dam with water cascading over a spillway into a pool. The dam structure is made of concrete and metal, with a large spillway gate. The water is white and turbulent as it falls. The background shows trees and a hillside.

Planning for all

purposes



Although water planning is not new, before the National Water Initiative it was more about storing and delivering water, rather than how we share water.

In 2004, the National Water Initiative committed states and territories to establishing statutory water plans for surface and groundwater systems, and in so doing providing security to all water users within a catchment or region, including the environment.

Ten years on, water plans now routinely involve community and scientific input. As well as setting rules for extractive and environmental use, they clearly define how much water is available, its reliability, and how much water can be used.

By involving communities in the trade-off decisions made between economic, social and environmental values and uses, plans have helped build confidence in how we manage our shared water resources.

Statutory water planning arrangements have given water users a secure basis for water access entitlements and allocations. This has encouraged investment, increased access to business finance, and promoted more efficient water use.

Most states and territories now have more than 80% of water use managed under water plans, and these are in place for almost all areas that experience high water use.

States and territories continue to take different approaches to planning, reflecting their different priorities and wide-ranging economic, social and environmental considerations. But planning is becoming more consistent and more sophisticated, with new tools and information being used to inform decisions.

Australia's experience since 2004, which has included wet and dry extremes, has highlighted the benefits of transparent and adaptive water planning to meet both expected and unexpected changes.



Photographs (clockwise from left): Goulburn Weir – Shutterstock image. Rice crops and harvesting grain near Jerilderie – Arthur Mostead. Young pines – Shutterstock image.



Improving environmental

health



Historically in Australia, water use was allocated to towns, irrigation and other human uses, and any water left over was described as ‘environmental water’.

In the 1990s, this approach proved to be untenable as we began to see environmental degradation, impacts on both water quality and quantity, and rapidly rising water extractions.

The National Water Initiative clearly defines how much water is available for use, its reliability, and how much water can be used. It gives environmental water statutory force—ensuring it has the same security as water for consumptive use.

In this agreement governments have committed to introduce effective and efficient arrangements to deliver environmental outcomes.

To meet this initiative commitment, governments have mainly used water plans to ensure that extractions are managed within agreed limits. This is intended to protect the productive base of the resource, as well as to safeguard the health of surface and groundwater systems.

Many newer plans have identified those environmental assets to be maintained and assessed their environmental water needs. Where systems are identified as overdeveloped, water recovery arrangements have put in place pathways for moving to more sustainable levels of extraction.

Within the Murray–Darling Basin, much of the water reform effort has made necessary adjustments through water recovery for the environment and investment in environmental works and measures.

Elsewhere, progress has been made in setting out clear and measurable environmental objectives, supported by water planning arrangements.

To date, the National Water Initiative has enabled the recovery of substantial quantities of water for the environment through buying and selling of allocations by environmental water managers in both state and Commonwealth agencies.

Photographs (from left to right): Echidna – Shutterstock image.
Murray River at Yelta – Chris Fithall.



Understanding our

water



Accurate, accessible and transparent water information is critical to Australia's national capacity to meter, measure and manage its water resources.

At the beginning of the National Water Initiative water reform journey, we lacked reliable and consistent national 'baseline' water data.

The initiative called for states and territories to build consistent water resource accounting so that information could be standardised, compared and aggregated.

Substantial investments in water science and data were funded by the Australian Government to support the National Water Initiative's objectives. Since 2004, these have delivered new scientific understanding and socio-economic information to support evidence-based decisions and reliable assessments of progress.

We now have a much more sophisticated understanding of Australia's water resources thanks to national modelling tools and datasets, seasonal stream-flow forecasts, frameworks for assessing river and wetland health, and extensive mapping of freshwater-dependent ecosystems.

Water planners know much more about the sustainable yields of many of Australia's most important surface water and groundwater systems, and the impact of water and land-use decisions and climate change.

That has meant we are now better informed about how much water we have, where it is, what its condition is, who controls it, and who is using it.

Today we also have national metering standards and a consistent framework for water metering and measurement. We have a national water account that reports on water supply and use within the economy at the state, territory and national level.

Collectively, this knowledge supports public and investor confidence in planning and management decisions, as well as the outcomes they deliver.



Putting a price on water

Services

In the decades leading up to the 1990s, prices charged in rural and urban Australia were rarely based on consumption and fell far short of covering the full costs involved in providing water services.

Without a price signal in place, there was little incentive to curb demand or use water more efficiently.

Governments began to address these issues with the first wave of national water reforms in 1994, which evolved further under the 2004 National Water Initiative.

Pricing reforms have introduced clear market signals, encouraging changes in behaviour. All states and territories have agreed to full cost recovery and movement towards this goal has been widespread in both rural and urban sectors.

For urban water supplies, most governments have introduced a form of economic regulation of pricing for water storage and delivery. There are also nationally-agreed pricing principles that set out government commitments to recover water management and planning charges on a cost-effective and transparent basis.

Improved scrutiny of pricing has led to more efficient urban water businesses, improved service, and engagement between business and consumers in the development of service options.

Volumetric and cost-reflective pricing has encouraged more efficient water use, and the movement of water to higher value uses. The recovery of full costs means that many water businesses are now better placed to fund necessary new investment.

Meanwhile, independent economic regulation and consumer protection frameworks are improving transparency and accountability, while protecting disadvantaged customers.



Photographs (from left to right): Pipes with water – Istock image.
Washing the car – Jeannie Fletcher.

Putting groundwater on the

map





In some parts of Australia, groundwater is the main source of water and on average it supplies around 30% of the nation's total water use. Groundwater extraction has expanded rapidly, and there are new impacts on our reserves.

Yet unlike surface water systems, groundwater supplies have not been as well understood, as well measured, or as well managed.

In the past, water management arrangements typically treated surface water and groundwater as separate resources and assigned rights to take and use water accordingly. These arrangements failed to account that extractions from one source may affect the sustainability of the other.

Groundwater and surface water systems are often physically connected. Even where this is not the case, there may be benefits in managing them as an integrated resource.

Since the National Water Initiative was signed, all states and territories have moved to align how they manage their surface water and groundwater, and there are more water plans that recognise the connectivity of these resources.

Over the past 10 years, our knowledge of groundwater and our awareness of its importance have greatly improved. Scientists have mapped new groundwater resources, developed models to understand groundwater behaviour, and explored groundwater-dependent ecosystems.

This information is now being considered as water plans are revised and as new water sharing plans are developed. Decision makers also have common definitions, guidelines and standards for groundwater management.

Water managers have begun to harness aquifer recharge to 'bank' water underground for reuse, and we have seen the first steps towards groundwater trading, which now accounts for 12% of total entitlement trading in Australia.



Stepping up on water for *cities*

Central

Woolworths

DAISO

adidas

adidas

adidas



The National Water Initiative aims to provide healthy, safe and reliable water supplies for all Australians. Governments also agreed to improve the management, efficiency and sustainability of our water systems.

By the time the initiative was signed in 2004, states and territories were already rolling out a series of complex reform actions that had started in 1994. These actions sought to address institutional fragmentation, inefficient regulation, price distortions and ageing infrastructure.

Soon after the 2004 agreement, urban water security emerged as a critical national issue. Population growth and declining water availability due to prolonged drought led to severe water restrictions in many towns and cities. As governments moved to diversify supply sources, they were confronted by challenges relating to planning, regulation, pricing, and market and institutional reforms.

This has since led many industry players to reconsider the need for a stronger and more contemporary urban water reform agenda based on National Water Initiative principles. These include a recommitment to good governance, clarity of roles and responsibilities, transparency on water-supply costs, and pricing water for full cost-recovery.

Nevertheless, National Water Initiative reforms have already delivered significant changes to the urban water sector. Cost recovery has been widely adopted, innovative tariff choices are being explored, and independent regulation is in place in all cities.

Australia now has national water efficiency labelling standards. We also have national health and environmental guidelines for recycled, stormwater, and drinking water. The quality of Australia's drinking water is world-class, with 78 urban utilities reporting 100% compliance with the *Australian Drinking Water Guidelines* in the 2012–13 National Performance Report on urban water utilities.

Photograph: Vertical urban garden, Sydney – Istock image.

Bringing governments

together





Under Australian laws it is not the federal government that determines the conditions on which water is available for use, but the state and territory governments.

Yet water does not ‘stop’ at state boundaries and there are national imperatives for water management. These centre on the need to share water across borders, to protect significant environmental assets, and to foster interstate water markets.

Attempts to achieve these goals were complicated by the different legislative and administrative arrangements that operated across governments, as well as by the varying characteristics of water systems both within and between states.

The 2004 National Water Initiative is an agreed blueprint for state and territory governments to act nationally on water reform. It comprises state-specific commitments, commitments applicable to groups of Murray–Darling Basin states, and commitments that can only be delivered through cooperation by all governments in Australia.

Over the past decade, the agreement has encouraged governments at all levels to share information and to harmonise approaches to water planning and management. This was catalysed by high-level COAG leadership and reporting on water policy and reform progress.

National Water Initiative principles underpin the pathway to return Australia’s largest catchment, the Murray–Darling Basin, to sustainable levels of extraction. They continue to underwrite improved governance in the way we manage our water resources.

Today this intergovernmental agreement is held in high regard internationally as a model for sound water governance and for addressing the challenges of cross-jurisdictional management of shared resources.

Where there is good governance, people know the rules and the roles and responsibilities of institutions involved in decision making.