



Australian Government
National Water Commission

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Chief Executive Officer

Dr Bill Pender
Secretary
Joint Select Committee on Northern Australia
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Dear Dr Pender

National Water Commission submission to the Joint Select Committee on Northern Australia Inquiry on the Development of Northern Australia

The National Water Commission welcomes the invitation to provide a submission to the Joint Select Committee on Northern Australia inquiry into the development of Northern Australia.

The Commission supports the sustainable development of water resources in Australia to increase economic production, support people, communities and industries, and ensure the ongoing health of river and groundwater systems.

Water is a critical element in the economy. The management of water resources and water quality for in-stream and consumptive use has a major impact on economic development opportunities.

Development of water resources frequently involves trade-offs between competing objectives and industries, including mining, tourism, and irrigated agriculture. In Northern Australia impacts may include marine resources, such as the northern fisheries and Great Barrier Reef.

Over the last decade, national water reform and improved water governance in Australia has been underpinned by the 2004 intergovernmental agreement, the National Water Initiative (NWI). The NWI is a joint and ongoing commitment by all state, territory and Australian governments to improve Australia's water planning and management. The NWI's overarching objective is to achieve a nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes.

The NWI has provided a robust and practical blueprint for water allocation and use with broad stakeholder support. It is a sound framework that is equally relevant for managing Northern Australia's water resources as other parts of the country.

The Commission has been an active participant and delivered a significant body of work to help underpin water resource management in Northern Australia. In partnership with the three northern jurisdictions and the Australian government, and through initiatives like the Tropical Rivers and Coastal Knowledge Research Hub and the Northern Australia Water

Futures Assessment, the Commission has provided the northern jurisdictions with information and tools to help them manage their water resources as the region develops.

In 2012, the Commission developed its Position Statement on Water Management in Northern Australia which outlines the following NWI-consistent principles for the sustainable management of northern water resources (Attachment A):

- Fully adopt and implement the National Water Initiative (NWI) water reform framework;
- Undertake transparent risk-based water planning as an essential prerequisite to effective water management;
- Develop an informed and shared understanding of Northern Australia's water resources based on robust science and socio-economic information;
- Recognise Indigenous interests in water planning and management; and
- Strengthen cross-jurisdictional institutions and forums across the north to support efficient and effective water management and planning.

By developing legislative and policy frameworks that align with these principles, northern water resources can be developed in a sustainable and profitable manner.

Fully adopt and implement the NWI water reform framework

The NWI provides a sound framework for managing Northern Australia's water resources in a transparent manner to balance economic, social, cultural and environmental outcomes.

Enactment of NWI-consistent legislation in Western Australia and the Northern Territory is a priority and the Commission welcomes signals from both jurisdictions that updated legislation and policy frameworks are being developed. For the full implementation of sound water management as described in the NWI, legislation must be in place that provides the systems and structures necessary, including a robust water entitlement regime, smart and efficient regulation, and risk-based water planning.

The NWI calls for these legislative and regulatory frameworks to include:

- Clear and nationally-compatible characteristics for secure water access entitlements;
- Transparent, statutory-based water planning including effective community engagement;
- Statutory provision for environmental and other public benefit outcomes, and improved environmental management practices;
- A clear understanding of the sustainable level of extraction;
- systems and structures to facilitate water trade and the removal or prevention of barriers to trade;
- Best practice water pricing;
- Water accounting which is able to meet the information needs of different water systems and users;
- Policy settings which facilitate water use efficiency and innovation in urban and rural areas;
- Recognition of the connectivity between surface and groundwater resources and integrated management where connectivity is significant; and
- Adequate provision for Indigenous water access.

One of the key lessons from southern Australia is that these water systems should be managed so that water entitlements and use do not overshoot the sustainable level of

extraction. The recent conflict in the Murray-Darling Basin clearly demonstrates that clawing back water resources to sustainable levels is painful, expensive and takes many years. It is far better that water systems are managed to encourage development that will not require similar remedial action.

Undertake transparent and inclusive water planning

NWI-consistent water planning aims to manage water resources in a manner that balances environmental, social, cultural and economic outcomes through a clear and transparent trade-off process based on best-available science. Effective water planning is essential to provide increased investment confidence and avoid the risk of over-allocation and overuse and the need for subsequent clawing back of water resources. Risk and uncertainty need to be accounted for in ways that neither unduly restrain development, nor create a high risk of unacceptable environmental degradation.

For water planning processes to be transparent and to inform trade off decisions, they need to involve all major stakeholders, including Indigenous communities.

Alignment of water planning with land planning is also important. Some key issues that offer opportunities in Northern Australia for development to be both sustainable and profitable include:

- Mining and petroleum water access aligned with state and territory water planning and management regimes to create a streamlined and effective interface;
- Clear links between water planning and other environmental regulatory and management frameworks to improve regulatory processes:
 - WA's Water in Mining guideline which outlines the links between environmental and water licensing approvals and the recently released Overview of the regulatory framework for WA's emerging shale and tight gas industry are good practice examples.
- High-conservation value ecosystems identified and protected.
- Good coordination of water management and natural resource management initiatives to enable cost effective solutions, for example by better aligning the development, implementation and review of water plans and catchment plans
- Sustainable development of urban areas:
 - Urban water supplies managed within sustainable limits under NWI-consistent planning arrangements
 - Using the principles of whole-of-water-cycle management which considers stormwater management, waterway health and wastewater management and re-use

Develop an informed and shared understanding of Northern Australia water resources based on robust science and socio-economic information

There has been significant investment to deepen the knowledge base of Northern Australia's water resources. The 2009 Northern Australia Sustainable Yields Project examined water availability and development opportunities in Northern Australia's north-draining catchments. The study produced information on historical, recent and likely future water availability in Northern Australia. <http://www.csiro.au/partnerships/NASY>

As part of the North Queensland Irrigated Agriculture Strategy, CSIRO has recently completed the Flinders and Gilbert Agricultural Resource Assessment. The project

investigated agriculture and water opportunities in these northern Queensland catchments. These studies have significantly increased the knowledge and information available to underpin water planning and management decisions in these catchments. <http://www.csiro.au/en/Organisation-Structure/Flagships/Water-for-a-Healthy-Country-Flagship/Sustainable-Yields-Projects/Flinders-and-Gilbert-Agricultural-Resource-Assessment-overview/Publications.aspx>. While these studies take a conventional approach to water resource development that assumes significant capital investment, development opportunities across the north may also include more diversified options, including smaller privately funded off-stream storages.

The Tropical Research and Coastal Knowledge (<http://www.track.org.au>) consortium has been conducting research to underpin the sustainable management of Australia's tropical rivers since 2006. This research has generated significant biophysical and ecological data and has also included extensive social research to clarify community aspirations in northern Australia.

The National Water Commission believes that continuing investment in robust science and water resource monitoring is needed to provide a basis for well-informed development decisions and innovative solutions. Information should be clearly communicated to the broader community to enable their informed engagement in consultation around the opportunities in Northern Australia.

Recognise Indigenous interests in water planning and management

Indigenous Australian's make up a relatively larger proportion of the population in Northern Australia and are significant landholders. Indigenous aspirations and interests should be included and factored into water planning and management processes. In many cases water required to address cultural needs has a significant overlap with the water regime required to deliver environmental outcomes, and can be at least partially addressed through coordinated delivery of these objectives.

All jurisdictions in Australia have made substantial progress in engaging with Indigenous people and communities in water planning processes, however there are still relatively few examples where this engagement has led to licenced water allocations being issued to Indigenous people. In Western Australia, there are continuing efforts to identify Indigenous cultural water needs and for this water to be retained "in situ". In Queensland, water plans in the Gulf and the Wet Tropics are providing water for Indigenous people through Strategic Indigenous Reserves. In the Northern Territory, in the past year the Government has announced that Strategic Indigenous Reserves, identified in draft water plans for the Ooloo aquifer in the Daly River region and for the Tindall aquifer at Mataranka, will not be included in final water plans for these groundwater systems.

Where Strategic Indigenous Reserves are utilised they have the aim of preserving economic opportunity for Indigenous people while they build the capacity to use the water into the future. The implementation of short term trading mechanisms is an approach that would allow any water partitioned for this purpose to be made available for current economic development. Without established SIRs, other approaches may be needed to make water

available where water-dependent development is a preferred pathway to address Indigenous economic disadvantage and water resources are being fully allocated.

Government investment in new water resources

An objective of national water reform has been to promote economically efficient and sustainable use of water resources, water infrastructure assets, and government resources. Robust and transparent approaches to government investment in new water infrastructure help to ensure that developments are likely to be financially viable into the future and that investment decisions consider non-market values (such as ecological costs and benefits). Under the NWI (clause 69), governments agreed to ensure that proposals for investment in new or refurbished water infrastructure would continue to be assessed as economically viable and ecologically sustainable before the investment is made.

Government investments in irrigation infrastructure have been a historical feature of regional development. In most jurisdictions irrigation distribution schemes have been privatised, while bulk water infrastructure remains in government ownership. Water charges generally recover the costs of the services being provided. In 2009, the Commission articulated a set of principles for government subsidies of irrigation assets which remain valid:

- Government contributions to investments should be proportional to the value of the public benefits produced by the investments, and the public benefits should be transparently estimated.
- Where government provides capital funding for investments that produce private benefits, the costs should be recovered from the beneficiaries over the life of the project using consistent methods.
- Water users should be fully informed about the immediate and future implications for water charges and should be engaged in the decision making process.

Without doubt, there are water resources available in northern Australia to support economic development. The location, quality, quantity, cost and reliability of water will significantly influence the potential extent, location and character of economic development. By ensuring that jurisdictions have NWI-consistent legislation and water planning arrangements in place before large-scale development, we have an opportunity to avoid repeating the mistakes made in southern Australia. This will enable the sustainable and economically viable development of northern water resources based on sound information, and support the aspirations of regional communities, including Indigenous communities.

Yours sincerely

Ms Kerry Olsson
27 February 2014

NWC 2012 Position Statement – Water Management in northern Australia

Introduction

Northern Australia is special to many Australians; the ancient landscape and strongly monsoonal weather patterns are manifested in a unique and diverse set of hydrological and ecological systems. Much of this natural landscape remains intact, supporting productive and healthy ecosystems, vibrant communities, and rich Indigenous cultures.

The character and behaviour of these northern Australian systems differ from other Australian systems. Rapid growth and development in northern Australia presents inevitable challenges for water management including water availability, water allocation, water infrastructure and water science.

With these challenges in mind there is now an historic opportunity to draw on the nation's wealth of experience and insights in water management to protect and sustain this unique part of our continent as it continues to develop.

The National Water Commission has invested more than \$20 million through the Raising National Water Standards Program to enhance knowledge and understanding of river ecology and water dependent ecosystems in northern Australia. In partnership with jurisdictions and through initiatives like the Tropical Rivers and Coastal Knowledge Research Hub and the Northern Australia Water Futures Assessment, the Commission has provided the northern jurisdictions with information and tools to effectively manage their water resources as the region develops.

Principles for managing northern Australian water resources

The Commission encourages the three northern jurisdictions and the Australian Government to apply the following principles and actions to water resource management in northern Australia as a priority:

1. Fully adopt and implement the National Water Initiative (NWI) water reform framework.

The NWI provides the right framework for developing and managing water resources and is equally applicable to northern Australia as it is other regions. Failure to adopt the NWI in full can create risks and limit opportunities. The NWI enables greater regulatory certainty and confidence for water related investment decisions, provides a community-wide, transparent and robust process for water planning decisions, and allows for adaptive management of water resources as new knowledge comes to hand.

- Enactment of NWI-consistent legislation should be a priority in Western Australia and the Northern Territory.
- Leadership is required in all jurisdictions to maintain resourcing over the long life of the reform process and to stand firm in the face of short-term challenges to reform actions.

2. Undertake transparent and inclusive water planning as an essential prerequisite to effective water management.

Settling tradeoffs between competing outcomes for ground and surface water systems involves judgements informed by best available science, socio-economic analysis and community input. Water planning and management needs to consider broader natural resource management planning initiatives and be inclusive of all stakeholders, including Indigenous communities.

- Manage water resources in a manner that balances environmental and cultural water requirements with development aspirations. Water planning and allocation decisions should take into account all water uses and balance economic, social, cultural and environmental considerations.
- High conservation value systems should be recognised through NWI-consistent transparent planning processes.
- Mining activities should be incorporated into state and territory water planning and management regimes from their inception.

3. Develop an informed and shared understanding of northern Australia's unique water resources based on robust science and socio-economic information.

After a decade of significant investment to deepen the knowledge base of northern Australia for water planning and management, governments now have a greater understanding of the relationships between the ecological systems and hydrological regimes, how they interact with sociocultural and economic factors, and how these would be impacted by water resource development. This has had an impact on the development of water policy, such as the establishment of Strategic Indigenous Reserves, the use of decision support tools for determining sustainable extraction regimes and for engagement of stakeholders in water planning.

- As stewards of Australia's water resources, governments need to continue to invest in science and monitoring so that decisions about development and management of water resources are well informed and stand up to scrutiny.
- The improved knowledge of the interrelationship of northern Australia's hydrological and ecological systems should be used to build public understanding of the nature and characteristics of northern Australia's water resources, especially the monsoonal weather patterns and low relief landscape.

4. Recognise Indigenous interests in water planning and management. The NWI requires that Indigenous interests and aspirations be factored into water planning; all the more important in northern Australia where Indigenous Australians make up a large percentage of the population and are significant landholders.

- The Commission supports efforts in the Northern Territory and Queensland to provide specific water allocations to Indigenous people. Access to water is an important mechanism for enabling Indigenous communities to achieve economic development and as such should be considered a legitimate strategy contributing to the 'Closing the Gap' agenda.
- Continued effort to build Indigenous community capacity to participate in water planning is necessary and could, in part, be achieved by utilising existing resources such as the expanding Indigenous community ranger network.

5. Strengthen cross-jurisdictional institutions and forums across the north to support efficient and effective water management and planning.

The establishment of the Northern Australian Ministerial Forum represents an important mechanism for Australia's northern jurisdictions to collaborate and coordinate their activities. The Indigenous Water Policy Group (IWPG), facilitated by the North Australian Indigenous Land and Sea Management Alliance (NAILSMA), is a good example of a mechanism to coordinate the effective engagement of Indigenous people across northern Australia. Northern Australia's water resources can be developed in an ecologically, culturally, socially and economically sustainable way by pursuing these principles and associated actions.

National Water Commission

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