

NSW Submission to the Productivity Commission research study into Rural Water Use and the Environment: The Role of Market Mechanisms

Background

NSW recognises the important role that market mechanisms can play in improving water use efficiency and environmental outcomes in rural areas. In recent years, NSW has gone further than any other jurisdiction in reforming water planning and management systems, and establishing a framework for water trade. NSW is committed to the objectives of the National Water Initiative (NWI) 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. This commitment and the significant reforms undertaken at the State level in recent years, means that NSW is well placed to implement further market based instruments to deal with water management related environmental externalities. A summary of NSW water reform since 1995 and NSW's progress with implementing actions under the NWI can be found at Attachments A and B respectively.

Issues Paper

NSW supports the approach taken in the Issues Paper to use the economic definition of water-use efficiency as opposed to the physical efficiency of water. NSW believes that such an approach will allow for a more valuable analysis of water use across Australia. NSW is of the view that the Productivity Commission's study would be best focused on on-farm externalities because externalities arising from water extraction and delivery are being addressed through the planning systems within the ambit of the NWI. NSW further believes that it would be useful for the study to focus on practical mechanisms in the context of the agreed NWI water property rights systems and planning processes that are in place in NSW.

Over-allocation

NSW is of the view that over-allocation, as referenced on page 8 of the Issues Paper, has largely been addressed in the State. NSW is addressing overuse through the water sharing plans process. The *Water Management Act 2000* amendments introduced perpetual access entitlements for most categories of access licences. Perpetual licences will guarantee a share in the water made available for extraction, rather than a particular volume of water. The actual amount of water made available will be principally determined by the climate and rules contained in the Water Sharing Plans (WSPs), which are periodically reviewed and remade so as to allow for adaptive management. Hence the conversion of old volumetric licences to a system of perpetual unit share avoids the possibility of entitlements being over-allocated, as the new water access licences no longer specify a licence volume.

The NSW WSPs take a significant step to addressing overuse in the context of the community's capacity to adjust to reductions in water allocations over the ten year term of these first plans. Overuse is being addressed through the establishment of periodic available water / sustainable yield determinations (for surface and groundwater respectively) and managing long term extraction limits within each WSP. Long-term average annual total extractions will be managed within the respective limit, thereby protecting the proportion of river flows identified for fundamental ecosystem needs at the start of the Plan from unlimited increases in long-term water extraction.

A long-term extraction limit in:

- all inland regulated river water sources is equal to or less than the Murray Darling Basin Commission (MDBC) Cap level of long-term average annual extractions, and in nearly all cases, the extraction limit is less than the Cap;
- all inland unregulated river water sources is equal to the MDBC Cap level of long-term average annual extractions; and
- all coastal unregulated river water sources are equal to the sum of entitlements and basic rights requirements at the commencement of the respective WSP. It limits future extractions to no more than what could have been extracted under the entitlements existing at the start of the WSP.

In all regulated river water sources, if average annual total extractions exceed the respective long-term extraction limit by 3% or more, then water allocations for supplementary water access licences, and if required, for regulated river general security access licences, will be reduced. In all unregulated river water sources, if annual total extractions (i.e. all water users) over 3 consecutive years in the water source exceed the respective long-term extraction limit by 5%, then water allocations for unregulated river access licences will be reduced. In both regulated and unregulated rivers, allocations will be reduced by an amount necessary to return subsequent total water extraction to the respective long-term extraction limit.

Water Trade

NSW has gone further than any other jurisdiction in establishing a framework for inter-state trade and removing barriers to trade. In 2004, the NSW Government passed a series of major amendments to the *Water Management Act 2000*, separating land from water and introducing a robust water register and water planning system. NSW was the first jurisdiction to implement all of these requirements.

NSW has commenced 31 WSPs representing 80% of water used for irrigation in NSW. WSPs for the remaining 20% of water will be gazetted within the deadlines set by the NWI. In December 2005, NSW became the first State to pass further legislation to implement the risk assignment model set out in the NWI and legislated to remove barriers to water trade out of private irrigation corporations. The amendments introduced measures for implementing the 4% interim trade threshold. All irrigation corporations have now made the necessary adjustments to give effect to the 4% threshold and are addressing the issue of stranded assets through exit fee proposals.

As acknowledged by the Issues Paper, the Murray Darling Basin accounts for a large share of total irrigation water use (in NSW, the Murray and Murrumbidgee valleys account for 80% of irrigation water use). In recognition of the importance of this region, NSW removed barriers to trade in these priority areas.

NSW is actively negotiating with other jurisdictions in the southern Murray Darling Basin to implement an NWI-compliant framework for inter-state water trade. NSW's preferred "tagging system" approach would allow for the permanent trade of water access entitlements across state borders with a minimum of administrative complexity and detriment to overall security of entitlement or third party impacts (including impacts on the

environment). NSW has discharged all of its obligations in anticipation of expanded inter-jurisdictional trade.

Trade by organisations responsible for river management

The Issues Paper refers to the potential for achieving environmental gains by allowing organisations responsible for river management to trade in water (page 13). NSW is unsure of the precise meaning of ‘river management organisations’ in the context of the paper. NSW water resource management agencies such as the NSW Department of Natural Resources are not able to trade in water. To do so could amount to insider trading in view of the information available to the Department in the course of assessing availability and allocating water. State Water is also unable to be involved in trading as it delivers water and manages the temporary water trading market. State Water’s Operating Licence requires it to be efficient and it is therefore regulation and the demands from its customers and shareholders, rather than a financial incentive, that drives its efficiency.

However, statutory organisations such as Catchment Management Authorities (CMAs) are allowed to temporarily trade in adaptive environmental water (AEW) if water is not required for environmental purposes in any given year. This is subject to an AEW plan of management being approved by the Minister for Natural Resources¹.

Trade in water between urban and rural sectors

In NSW, hydrological considerations necessarily restrict the level and location of trade between urban and rural sectors. In addition, the necessary differences between the manner of allocation to the urban sector (i.e. through bulk licences to utilities) and rural sector (smaller entitlements to individual entitlement holders or groups) create an inherent restriction on inter-sector water trade. Having said this, NSW allows water utilities (that is, the urban water sector) to trade in water savings in certain circumstances. Utilities must demonstrate efficiency gains and obtain Ministerial approval for such trade. However, even in these circumstances, the ability of utilities to trade water to the rural sector is not absolute and utilities cannot trade water permanently. This is because the supply of water to utilities is not through the market, but rather through application to the Minister (since town water supply is regarded as a basic right). To allow permanent and unrestricted trade of water allocated in this manner would be inequitable.

The effect of utilities trading savings water would differ between the region depending on the specific balance between urban and rural water use. Urban water use is small compared to rural water use in the Murray/Murrumbidgee regions. The amount of water saved through urban efficiency measures in these regions would therefore be unlikely to produce a significant opportunity for inter-sector trade. However, in valleys such as the Peel, urban water supply needs (for Tamworth) are approximately 10-11 GL per annum where irrigation needs are around 5-6GL per annum.

¹ Adaptive Environmental Water is water held under a water access share entitlement that contains specific conditions requiring the water to be committed for particular environmental purposes (either generally or at specified times or under specified circumstances).

Access to information

The NSW Department of Natural Resources' website has a register of all water allocation assignments, which constitute the bulk of water trading in NSW. This is searchable by water source, category and individual licences. It includes price paid as disclosed by the seller. The Department is currently developing an online register on permanent trading. Some information on permanent interstate transfers is already available on the internet.

In recognition of the need for information programs to assist irrigators to become familiar with water market processes, and improve physical water use efficiency on the farm, NSW developed the WaterWise on the Farm program. Important evaluation outcomes of the initiative have been that:

- the extent to which an irrigated enterprise will adopt technologies and practices to improve physical water use efficiency is largely driven by the perceived scale of financial and non-financial benefits, the degree of complexity, and the availability of relevant information;
- irrigators require that a full analysis of potential financial benefits of new irrigation works and changes in irrigation management practices are available to them before they will become engaged in considering the options available, and that in many cases they then require significant individual assistance in further evaluating efficiency options within the context of their individual farms; and
- farmers are more willing to improve physical water use efficiency by adopting improved irrigation technologies (eg pumps, sprays, pipes etc), than to adopt improved irrigation management practices (eg irrigation scheduling). Changes in irrigation practices are considered by farmers to have higher risks, especially where they include significant changes in the production system (potentially even including changes in the final irrigated product).

Water harvesting, storage and distribution on on-farm water use decisions

In recent years, in the context of the prolonged drought, farms, particularly in the north of the State, have sought other sources of water. As a result, there has been an increase in floodplain and rainfall runoff harvesting over the last 5-10 years. This water was generally un-metered and free for farms to use. While the Farm Dams Policy limits access to runoff to 10%, this policy only applies to hill side slope dams. The policy is currently being updated to produce a Floodplain Harvesting Policy, as required under the NWI. Floodplain harvesting is to be brought within existing water sharing arrangements and the NSW Department of Natural Resources will establish a process and timeline for audits of floodplain extraction works and delivery of floodplain harvesting outcomes within the Water Sharing Plan framework.

Some farms are managing their properties so that any surplus water that flows across their property can be caught, stored and utilised. This water is stored on large, on-farm storages where it can be applied to the crops when needed. Ability to catch the water is influenced by climatic and spatial conditions. The dependence on water harvesting is increasing and now totals a significant proportion of the total water diverted.

NSW is of the view that improved efficiency will not necessarily result in more water available for extraction. The amount of water available for extraction is defined by the size of the consumptive pool. This represents the long term average sustainable extraction from

the system, as determined by the imposition of the rules contained within the WSPs. Extractions cannot be increased above this level. Any efficiency gains on-farm can either be bequeathed to the environment or used to generate more yield from that farm using the same amount of water. A change in on-farm infrastructure could result in one user extracting more water from a particular source, such as flood plain harvesting. This increased extraction would have to be counterbalanced by reduced extractions from another water source to maintain the total extractions within the Plan limits.

Water related externalities and effects on communities

NSW has created two water products on regulated river systems: high security and general security access licences. Section 58 of the *Water Management Act 2000* specifies the priorities between different categories of licence. This section provides regulated river high security access licences with a higher priority than all access licences other than local water utility access licences, major utility access licences, and domestic and stock access licences. Section 58 also requires that if water allocations to access licences are to be reduced (for example to manage total extractions within a sustainable level) then the water allocations of the high priority licence are to be reduced at a lesser rate than the water allocations of the lower priority licence.

The water supply systems in most of these regulated river water sources are required to be managed such that sufficient volumes of water are reserved so as to maintain full allocations to high security during a repeat of the drought. Hence, it is only in exceptional circumstances that high security licences do not receive full allocations. If total extractions within a water source exceed the Plan's long-term extraction limit, then future water allocations to supplementary water licences, and if needed, to general security licences, will be reduced. Future allocations to high security licences are protected from such reductions.

Water related externalities can impact on the risks irrigators are prepared or willing to take in terms of planting and irrigating land. Modelling of ultimate development-type scenarios by the NSW Department of Natural Resources saw irrigators moving towards a 'use it or lose it' mentality that resulted in boom/bust behaviour. This could then have flow-on effects to the community resulting in a similar boom/bust outcome for the local community. However, during seasons where irrigators find themselves without enough water to irrigate their crops and meet their financial commitments, boom/bust behaviour is generally replaced with a more conservative approach to water use. With carryover of water and the shift to continuous accounting, there is less likelihood of boom/bust behaviour. In communities that are dominated by large, single crops (rice or cotton areas), the behaviour of the large irrigators can have an impact on the community.

Addressing environmental externalities

RiverBank

NSW RiverBank is a new \$105 million environmental fund set up by the NSW Government to buy water for our most stressed and valued rivers and wetlands over the next five years. The program is part of a broader City and Country Environment Restoration Program, announced by the NSW Premier on 29 November 2005.

Wetlands dependent on NSW's iconic river systems such as the Macquarie Marshes, the Lowbidgee and Gwydir wetlands, and the Narran Lakes are declining in area and health. This has had a major impact on the local environment including native vegetation and fish, birdlife and inland floodplains. Similarly, the productive use wetland areas has also declined with stocking rates for livestock grazing enterprises in the Macquarie Marshes and other wetland and floodplain areas having declined significantly since river regulation.

It is these environmental, socioeconomic and cultural externalities associated with the current distribution and use of water that NSW RiverBank will contribute to addressing over time. NSW RiverBank represents a market mechanism that will assist in improving the economic efficiency of rural water use through building and actively managing a portfolio of water access licences for priority rivers and wetlands. In doing so, it will contribute to the ongoing task of returning water extraction in overused systems to environmentally sustainable levels, consistent with our National Water Initiative obligations, and will build on the environmental outcomes achieved through the first round of statutory WSPs in NSW. Importantly, it will provide a price signal in the water market, which is currently absent, for the environmental, cultural and social values associated with healthy riverine, floodplain and wetland ecosystems.

NSW RiverBank will take a commercial approach to acquiring water from willing sellers within the existing water sharing and water management framework, without compromising the rights of existing water users. It provides a mechanism by which individual businesses can directly finance the improvement of on-farm water infrastructures, through the sale of a portion of their access licence, at a rate and scale which suits their business circumstances. This represents an efficient means by which Government investment can facilitate improved rural water use efficiency, and address environmental externalities, without disruption to existing institutional and social structures. It will also provide an efficient mechanism for industry adjustment where individual businesses wish to exit the irrigation industry.

NSW RiverBank will consider innovative means and partnerships for water access, including potential competitive tender processes and options contracts, and will participate in the trading of annual water allocations where this is consistent with its objectives. In doing so, it will improve the ability of the market to achieve an economically efficient distribution and use of water access over time.

While the potential for market mechanisms to address rural water use efficiency continues to be considered for programs such as The Living Murray Initiative, NSW RiverBank is the first instance of an entity established by Government to improve the efficiency of water distribution and use through the purchase of water on behalf of the environment. NSW RiverBank will operate under the NSW Environmental Trust and over the next few months will produce a Business Plan for its operation which will commence in July 2006. Its initial years of operation will be important in informing Governments of the potential for market mechanisms generally in addressing water management related environmental objectives.

Further information about the City and Country Environment Restoration Program, please is available at the Department of Environment and Conservation's website at:

<http://www.environment.nsw.gov.au/education/ccerp.htm>.

Hunter River Salinity Trading Scheme

The NSW Government's Hunter River Salinity Trading Scheme has successfully used economic instruments for the effective protection of waterways. It has demonstrated the way in which Government can work with industry and local communities to develop innovative, market-based tools to manage the local environment in a sustainable way.

The Hunter River Salinity Trading Scheme is a licensing scheme for discharges of saline water in the Hunter River catchment above Singleton, from mines and power stations. The objective of the scheme is to manage saline water discharges so as to minimise impacts on irrigation, other water uses, and on the aquatic ecosystems of the Hunter River catchment. It aims to achieve this objective at least overall cost to the community, in an equitable and flexible manner and in a way that provides ongoing financial incentives to further reduce pollution. Underpinning the scheme is a comprehensive system of real-time monitoring of discharges and river conditions. A 'River Register' is operated by the Department of Natural Resources and funded by scheme participants, based on the monitoring data.

The scheme is implemented under the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*. The Regulation builds on the success of the pilot scheme that operated from 1995. It enhances the pilot scheme framework to ensure water quality objectives will continue to be achieved.

NSW is of the view that individual trading in salinity credits at the farm level is not feasible as the impacts of individual activities cannot be defined or measured. For example, it is difficult to determine whether the cause of salinity at a farm level is from farming or from trading. The causes of such impacts are subject to modelling and detailed analysis which at the farm level is rarely cost-effective.

Information about the Hunter River Salinity Trading Scheme is available on the Department of Environment and Conservation and Department of Natural Resources' websites at: <http://www.dec.nsw.gov.au/licensing/hrsts/index.htm> and http://hits.nsw.gov.au/salinity_trading.html.

NSW Water Reform

The *Water Management Act 2000* with subsequent 2004 and 2005 amendments has put NSW at the forefront of modern water management by providing clear rules to ensure that both the environment and water users receive their fair share of available water.

Our focus and priority is on:

- recognising the environment as the priority user of water to maintain healthy rivers and groundwater systems defined by the rules in Water Sharing Plans;
- supporting regional development through secure and reliable water entitlements and a sustainable water use and management framework; and
- encouraging water conservation through movement of water to higher value use through facilitating trade and developing water saving and efficiency measures.

An overview of Water Reform in NSW

1995 – 1999

In 1995, the NSW Government embarked on a major program of reform to the management of the State's water resources, guided by the *Strategic Framework on Water Reform* agreed to by the Commonwealth and the Australian States and Territories at the Council of Australian Governments in 1994.

The reforms included:

- limits on State-wide extractions by signing up to the Murray Darling Basin Cap on diversions;
- establishing clear environmental protection priorities by identifying those surface and groundwater systems that were most stressed;
- establishing water quality objectives, and river flow objectives and management rules which provided more water to the environment;
- improving community input into water management through the establishment of community based committees;
- pricing measures to encourage more efficient and responsible use of water, including pricing regimes based on the principles of full cost recovery, consumption based pricing and removal of cross subsidies; and
- determination of water prices by an independent regulator to remove potential conflicts of interest in the pricing process and to ensure that the principles of full cost recovery, consumption based pricing and removal of cross subsidies were incorporated into prices.

While these were major milestones in themselves, NSW's water management system was still governed by the *Water Act 1912*, an outdated framework for achieving the water reform objectives of COAG and the NSW Government.

Under the old framework there were:

- no secure water entitlements with commercial licences issued for five years that could be granted, altered or withdrawn at any time, at the Minister's discretion, without compensation;
- water management and allocation rules that could be changed at any time with no compensation;
- no clearly specified rules under which water sharing decisions could be made in the future;
- no formal powers to reserve water to maintain the health of rivers and groundwater systems;
- no formal framework for community involvement in water management planning;
- no separation of water from land titles resulting in severe restrictions to water trading; and
- no framework for managing the taking and use of water on a risk management basis.

Water Management Act 2000

The *Water Management Act 2000* (the Act) laid the foundation for a new water management framework that recognises our rivers and aquifers as precious environmental assets while providing our regional industries and communities with the security of access that they need to plan their future.

Under the Act, NSW:

- established fundamental objects and principles for protecting, enhancing and restoring water sources and their associated ecosystems;
- developed Water Sharing Plans that set the rules for the allocation of water between environment and water users for 10 year periods;
- introduced clearly defined water access licences with 10 year terms which are separate from land ownership and can be borrowed against and traded;
- provided for a state of the art public register to record all water entitlements, the ownership of these entitlements and third party interests;
- established the principle of adaptively managing water in light of new information, so that the way in which the resource is shared between the environment and water users is informed by the environmental condition of the resource and overall catchment health; and
- introduced a transparent process for making decisions on allocating water by providing the opportunity for community based groups to submit their views on water allocation and for a comprehensive assessment of environmental and socio economic considerations as part of the decision making process.

Water Management Amendment Act 2004

The amendments to the Act in 2004 enabled NSW to commence its new water management framework on 1 July 2004 within the ambit of the National Water Initiative (NWI).

Key amendments included:

- clearly defined access share entitlements issued in perpetuity for commercial licences and for as long as the licence is required for specific purposes such as town water and domestic and stock;
- perpetual water access licences guarantee a share in the water made available for extraction. They do not guarantee access to a particular volume of water. The actual amount of water made available for extraction will be primarily determined by the climate and rules contained in the Water Sharing Plans;
- increased opportunities to trade water, including the introduction of water leasing arrangements, and inter-state tagging of traded water;
- streamlined processes for administering use and works approvals;
- clearer, more transparent framework for determining future water sharing based on clear and measurable catchment health objectives and independent assessment of progress in achieving objectives arrangements (by the Natural Resources Commission);
- Catchment Management Authorities to acquire and manage adaptive environmental water through establishing environmental water trust funds; and
- Water Innovation Council to advise the Minister on environmental protection opportunities, including opportunities for environmental water recovery.

Water Management Amendment Act 2005

Further initiatives at both the Commonwealth and the State level such as the NWI risk assignment framework and removal of barriers to trade, water savings and recovery projects, cold water pollution mitigation measures, the statutory Water Sharing Plans and enhanced water trading opportunities required additional amendments to the Act to ensure their effective implementation.

Key amendments included:

- a clearer, more accurate definition of environmental water, which reflects how water is accessed and managed in practice through the Water Sharing Plans;
- NWI risk assignment framework for changes to Water Sharing Plans to commence from 2014;
- Irrigation Corporations required to remove barriers to permanent trade up to a 4% threshold;
- purchase of supplementary water to meet environmental needs;
- licences with adaptive environmental water conditions created through water savings;
- easing trade by a co-holder of a water access licence;
- the inclusion of floodplain harvesting in Water Sharing Plans; and
- application of cold water pollution strategies at major storages.

NSW NWI Implementation

NSW submitted its NWI Implementation Plan to the National Water Commission for accreditation in September 2005. The plan is expected to be accredited in early 2006. The draft NSW NWI Implementation Plan is available on the NSW Department of Natural Resources' website at <http://www.dnr.nsw.gov.au/water/legal/pdf/nvi2005.pdf>. NSW was the first jurisdiction to submit an NWI Implementation Plan to the National Water Commission and is well advanced in meeting the actions under the Plan, as outlined below.

Element 1 – Water Access and Planning Framework

- 31 Water Sharing Plans commenced on 1 July 2004 covering about 80% of water use in NSW.
- Macro Plans and individual WSPs are being prepared for the remaining areas of the state, covering 20% of water use.
- Perpetual water access licence certificates are being issued to licence holders in water sources where the 31 Water Sharing Plans have commenced.
- Water Access Licence register is in operation.
- 6 major inland groundwater plans are expected to commence in July 2006
- 2005 amendments to the *Water Management Act 2000* introduced provisions to initiate the NWI risk assignment framework that will start from 2014.
- Draft floodplain harvesting policy is being prepared.

Element 2 – Water Markets & Trading

- Irrigation Corporations (ICs) in the southern Murray Darling Basin have to remove barriers to permanent trade out of their areas up to 4%, known as “the interim threshold”.
- The interim threshold is to be introduced in early 2006.
- Two of the ICs have held annual general meetings to introduce changes to their constitutions to implement the threshold. The third IC, Murray Irrigation Limited, is holding an annual general meeting in early 2006 to discuss the changes.
- IC's propose to establish exit fees to deal with stranded assets from water traded out.
- 2005 amendments to the *Water Management Act 2000* have introduced provisions to ensure compliance with the 4% interim threshold.
- Inter-state trade is being progressed through the MDBC and the NWI Water Trading Group.

Element 3 – Best Practice Water Pricing

- Prices set by the independent regulator, the Independent Pricing and Regulatory Tribunal (IPART).
- Pay-for-use and full cost recovery substantially achieved for non-metropolitan water utilities. The Department of Energy, Utilities and Sustainability (DEUS) is working with the remaining local water utilities to achieve compliance.
- Full cost recovery already achieved for regulated rivers and metropolitan water suppliers.

- For unregulated rivers and groundwater, the Department of Natural Resources (DNR) has submitted its WRM costs report to IPART for setting a water charges price path from 2006/07 to 2009/10.
- DNR has provided costing information that reflects the full cost of WRM service provision, including the share of costs attributable to water users.
- *NSW Water Supply and Sewerage Benchmarking Report* for non-metropolitan water utilities is published annually by DEUS and is available on DEUS website.
- As part of a National Benchmarking Framework, DEUS is contributing to a national working group which is developing a set of key performance indicators to be used for all Australian urban water utilities.

Element 4 – Integrated Management of Environmental Water

- Institutional arrangements for effective management of environmental water have been established (Attachment B of NSW NWI Implementation Plan).
- Environmental water (both planned and adaptive) is accorded highest priority in *Water Management Act 2000* and Water Sharing Plans as per COAG and NWI requirements.
- A number of water recovery measures have been planned and some initiated.

Element 5 – Water Accounting

- NWI Committee is engaging a consultant to progress the water accounting action. Tenders have been called to undertake a stocktake of the water accounting practices in the various states. Through the MDBC and cap implementation, NSW, Victoria and SA have already developed significant expertise in accounting of water.
- NSW is moving to establish staff positions within the Regions to implement the monitoring and measurement of water usage. This will be done on a priority basis, with the larger extractions being the first to come under increased scrutiny.
- NSW has developed a water usage monitoring policy, and standards for monitoring installations and sites.
- The National Measurement Institute is preparing a draft specification for water meters.

Element 6 – Urban Water

- The Government's 25 year Metropolitan Water Plan has identified and prioritised a balanced array of supply augmentation, water recycling and water conservation measures to secure water supply for the Sydney area. Key elements of the plan relating to recycled water, deep storages, desalination and demand management programs are already being implemented. In February 2006, the NSW Premier released a progress report for the 2006 Metropolitan Water Plan, which is available at www.waterforlife.nsw.gov.au.
- The demand management and additional water supply components of the current plan are on track, and further investigations are continuing.
- The supply and demand measures are fully integrated with the goal of improving river health and water quality.
- The NSW Government has implemented the Building Sustainability Index into the development approval process requiring reductions of 40% in drinking water and 25% in energy use.

- Legislation has been passed to implement the national Water Efficiency Labelling Scheme (WELS) which is a precursor to establishing minimum standards for key water using appliances. Additionally the government is developing and implementing a “Water Smart Mark” for household gardening equipment including irrigation systems.
- NSW contributes to a special account established under the Agreement which allocates funds for promotion of the WELS scheme, as well as other activities, up to 2009/10.
- DEUS provides information about WELS on its website and disseminated information about WELS to energy and water stakeholders in its “watts & drops” monthly circular.
- The Government has placed a requirement in Sydney Water’s Operating Licence for the utility to report on its performance in reducing leakages from its system.
- The NSW Government has established a Water Savings Fund to provide \$30M annually for financial assistance for water conservation measures.

Element 7 – Community partnerships and adjustment

- The 31 Water Sharing Plans were developed through local water management committees consisting of a range of stakeholders.
- The plans were placed on public display and public submissions considered in the finalisation of the plans.
- Public consultation was extensive, occurring over the 2 years of plan development and gazettal.
- Macro plan rules currently being prepared by regional panels include representatives from the Catchment Management Authorities (CMAs).
- Peak stakeholder groups have been briefed on the macro plans.
- The CMAs have facilitated consultation on the process, the water access outcomes, and trading rules in all regions except Barwon.
- Stakeholder groups have broadly been consulted on the Wetland Recovery Plan. Further consultations are proposed on options to be pursued.
- The Natural Resources Commission will also call for and consider public submissions while reviewing the Water Sharing Plans between the fifth and ninth year.
- Significant consultation occurred with inland groundwater licence holders on adjustment measures as a result of reduced access to water.
- The draft NSW NWI Implementation Plan has been placed on DNR’s website for public access.
- A copy of the draft plan has been provided to the Natural Resource Advisory Council members for comments.

Element 8 – Knowledge and Capacity Building

- NSW has developed a network of NSW resource management agencies such as DNR, DEUS, the Department of Environment and Conservation, the Department of Primary Industries, and research corporations for developing knowledge and capacity building in support of the NWI.
- The Government is actively engaging this network for the development and implementation of a NSW Knowledge and Capacity Building Plan that will contribute to the development of a national roadmap for water research.