

Submission to National Water Commission: Water Reform Assessment Framework 2005



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1 Introduction

1.1 The authors

This submission is a joint submission by the Nature Conservation Council of NSW, the Inland Rivers Network, the Australian Conservation Foundation, and the Environmental Defenders' Office (NSW), collectively termed "**the NGOs**" in this submission.

- *The Nature Conservation Council*

The Nature Conservation Council of NSW ("**NCC**") is the peak conservation group for NSW and serves as the umbrella organisation for more than 120 environmental member groups. NCC works closely with member groups, local communities, government and business to protect, sustain and conserve the NSW environment.

NCC co-ordinates and develops NSW-based community education projects, scientific research, conferences, conservation publications and awareness campaigns and also advises key decision-makers at a local, state and national level. NCC has extensive experience in NSW NRM planning processes as an environmental stakeholder. NCC was represented on all water sharing plan committees.

- *The Inland Rivers Network*

The Inland Rivers Network ("**IRN**") is a coalition of environment groups and individuals concerned about the degradation of the rivers, wetlands and groundwaters 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 ACF; the NCC; the National Parks Association of New South Wales; Friends of the Earth; and the Coast and Wetlands Society.

- *Australian Conservation Foundation*

The Australian Conservation Foundation (" **ACF** ") is Australia 's leading national not-for-profit environment organisation and is funded almost entirely by individual membership and donations. Since 1966, it has focused on the most important and urgent environmental problems, seeking change with lasting political, economic and social support. ACF has played a key role in increasing protection for some of Australia 's most outstanding natural assets including the Franklin River, Kakadu, the Daintree Rainforest and the Great Barrier Reef.

ACF is committed to inspiring people to achieve a healthy environment for all Australians. For 40 years it has been a strong voice for the environment, promoting solutions through research, consultation, education and partnerships. It works with the community, business and government to protect, restore and sustain our environment.

- *Environmental Defender's Office*

The Environmental Defender's Office (" **EDO** ") is a not-for-profit community legal centre specialising in public interest environmental law. It helps individuals and community groups who are working to protect the natural and built environment and is part of a **national network** of EDOs that help to protect the environment through law in their States. The EDO has played an active role in promoting debate on water issues since the mid 1990s. In recent years, the EDO has provided advice to conservation groups and members of Parliament about the changes to water management legislation in NSW, in particular the development and implementation of the *Water Management Act 2000* and the amendments to that Act. The EDO has also, on behalf of the NCC, run the legal challenge to the Gwydir Regulated River Water Sharing Plan in the cases of *Nature Conservation Council of New South Wales Inc v Minister Administering the Water Management Act 2000*.

1.2 Background

The NGOs have closely followed the National Water Initiative (" **NWI** ") since its inception in 2003, and were heavily involved in the COAG water reforms since 1994. The NGOs support a holistic approach to national water reform and stress that an integrated approach to the eight key elements of the NWI (water access entitlements; water market and trading; best practice water pricing; integrated management of water for environmental and other public benefit outcomes; water resource accounting; urban water reform; knowledge and capacity building; and community partnerships and adjustment) vital for the NWI to be successful in restoring the NSW rivers to health. The eight elements must be implemented in a careful and timely manner in order to achieve the required productivity and efficiency of water use; address the existing issues of over-allocation and over-use; and protect unspoilt water systems whilst also addressing the water security needs of both users and the environment.

Each of the aspects of the *Water Reform Assessment Framework 2005* document ("**the assessment document**" ("**D**")) on which the conservation groups wish to comment are taken in turn below. The NGOs note that not all matters in the assessment document have been covered, largely due to time and resource constraints on the part of the contributors. We would appreciate the opportunity to meet with representatives of the NWC at a later date to elaborate on matters raised in this submission.

2 Assessment Document Criteria

3.1 Implementation

a) Completion of National Water Initiative (" **NWI** ") implementation plans.

- *NSW Implementation Plan overdue*

The NSW NWI implementation plan (" **the IP** ") for NSW is not yet complete. The NGOs note that under Schedule A of the *Intergovernmental Agreement on a National Water Initiative* dated 25 June 2004 (" **the Agreement** "), the agreed deadline for publication of the IP was June 2005. The IP is clearly crucial to the success of the NWI. The failure by NSW to release even a public consultation draft a full 3 months after the deadline is a matter for concern.

- *Preparation of the IP must include full community consultation*

There has also been no consultation with NSW environment groups in relation to the content of the IP, and no draft IP has been released for this purpose. The National Water Commission (" **NWC** ") states in its Guidance for Preparation of Implementation Plans for the NWI that:

"implementation planning should build confidence in the water reform process amongst water users and other stakeholders. Plans should therefore be in a form which provides clear, understandable and sufficient information about steps to be taken to meet commitments under the NWI. Public consultation should be involved in the developments of the plans." 1

We also note the Agreement's commitment to:

".open and timely consultation with all stakeholders in relation to pathways for returning overdrawn surface and groundwater systems to environmentally sustainable extraction levels"

Accordingly, the NGOs look forward to being able to provide meaningful input into the development of the IP as well as to its implementation once finalized.

- *IP should only be accredited if it incorporates the Schedule E Guidelines*

Part of the accreditation process for the IP by the NWC should be ensuring that the Plan clearly integrates the Guidelines contained in Schedule E of the Agreement ("**the Schedule E Guidelines**"), to ensure that they have both addressed their obligations in a transparent manner and secured environmental outcomes. As NSW has not yet released a draft IP, the NGOs are unable to comment upon whether the IP is likely to integrate the Schedule E Guidelines and be suitable for accreditation.

- *Water Sharing Plans ("**WSPs**") must be implemented via IPs, and current WSPs must be consistent with IPs accredited by NWC*

In NSW, 36 WSPs have been gazetted and, with the exception of five groundwater plans, those WSPs commenced on 1 July 2004. All WSPs contain provisions which deal with environmental water; basic landholder rights; limits of the availability of water in accordance with a bulk access regime; rules for managing access licences and access licence dealing rules to govern trading; and other dealings with entitlements. However, without being able to compare those provisions with the IP, the NGOs cannot say whether current WSPs will be consistent with an IP that meets the NWC standards..

Section 51 of the NSW *Water Management Act 2000* ("**WMA 2000**", by which the NSW government has purported to implement the water reforms) provides (relevantly):

51 Implementation programs

1. The Minister may, by order in writing, establish a program for implementing a management plan or Minister's plan (an *implementation program*).
2. Before establishing the first implementation program for a management plan, the Minister must consult with the management committee by which the plan was prepared.
3. An implementation program must set out the means by which the Minister intends that the objectives of the relevant management plan or Minister's plan are to be achieved.

Section 51(1) above makes the establishment of implementation programs under the WMA 2000 discretionary. These programs are important in explaining how many of the objectives and rules adopted in WSPs will be given effect to. The Department of Natural Resources ("**DNR**") has, in the past, described the WSPs as "high level policy documents" with the detail to be provided in the implementation programs under the WMA 2000. The NGOs understand that DNR is in the process of preparing these programs, but it is not clear how they will align with the IPs required under the NWI.

- *IP must articulate the specific catchment targets, timelines and milestones for environmental protection that the current WSPs fail to articulate*

A specific stated outcome of the NWI, and one that the NGOs consider to be crucial to the successful implementation of the NWI, is that planning frameworks are to:

"implement firm pathways and open processes for returning previously overallocated and/or overdrawn surface and groundwater systems to environmentally sustainable levels of extraction"

2

We acknowledge that the NSW Government has taken steps towards sustainable water management by developing legislation (i.e. the WMA 2000) that provides for "Management Plans" to govern management of the water resource. The WMA 2000 provides that these Plans are to include provisions for water sharing, environmental water, "aquifer interference activities", water use, and drainage and floodplain management." **3**

However at present only the water sharing aspects are in place - via stand-alone WSPs - and then only in certain parts of NSW, leaving large areas of NSW without a robust or adaptive framework for managing the water source at all. The *Water Act 1912*, for example, does not provide for the allocation of environmental flows, nor does it have objectives that relate to sustainable water management.

The NGOs are also aware that the Government is developing "Macro Plans" for the water sources not currently covered by WSPs, that is, groundwater and unregulated water sources. These are to consist of 12 Macro Plans for Groundwater sources and 28 Macro Plans for unregulated sources. Community consultation is expected to commence next month through the Catchment Management Authorities. To date, the NGOs have not seen the details of the Macro Plans and were only briefed on its methodology in mid September 2005. The NGOs are also concerned that this consultation is only being conducted at a regional level with no requirements for public notification or consultation with all sectoral representatives, and that the peak environment groups, despite being primary stakeholders in the water planning process, may effectively be excluded from input at this key stage. This approach is contrary to the public participation elements of the COAG reforms and the NWI.

Even (or perhaps especially) where WSPs are in place, the continued ecological decline in most freshwater systems covered by these WSPs indicates that these instruments are insufficient in themselves to achieve environmentally sustainable water use. Further, many of the environmental water allocations that WSPs provide are not secure, but are vulnerable to other extractive uses in many circumstances (discussed in further detail below). Finally, as separate WSPs exist for groundwater and surface water respectively, sustainable levels of extraction in these interconnected systems cannot be ensured under the current WSP framework. Similarly, Macro Plans are being developed separately for surface water and groundwater sources and are likely to perpetuate the problems outlined above. In addition, Macro Plans have been developed to cover much larger geographical areas.

On this basis it is essential that the IP when prepared articulates meaningful targets, timelines and milestones for returning the State's stressed rivers to health, and provide for clear, effective mechanisms to enforce these outcomes. The NGOs are keen to build community confidence and support for water reform, but can only do this when satisfied that the pathways to be set out in the IP have a realistic chance of doing this.

- *IP should incorporate statewide NRC targets*

The IP should include the statewide targets currently being developed by the Natural Resources Commission ("**NRC**") under s13(a) of the *Natural Resources Commission Act 2003*, which are also to be promoted or incorporated in the NSW Catchment Action Plans ("**CAPs**", cf. s20(2) of the *NSW Catchment Management Authorities Act 2003*). The IP should be assessed for consistency with the CAPs by the NRC prior to their accreditation by the NWC in order to provide some uniformity in catchment management throughout NSW.

In consideration of the above the NGOs make the following recommendations to the NWC:

Recommendations :

1. That the NWC implements negative incentives for States' failing to develop IPs in accordance with the Agreement;
2. That the IP not be accredited unless it articulates the specific catchment targets, timelines and milestones for environmental protection;
3. That the IP not be accredited unless it ensures consistency with the NRC statewide targets;
4. That the IP only be accredited by the NWC if it complies with the Schedule E Guidelines and with the NRC statewide targets;
5. That the IP be subject to full community consultation prior to being accredited, including an opportunity to comment on whether it complies with the Schedule E Guidelines and NRC statewide targets;
6. That commenced WSPs that are inconsistent with the Agreement and/or the Schedule E Guidelines be amended so that they are consistent with those documents;
7. That Macroplanning process is assessed by NWC prior to Micro Plans being released.

3.2 Water Access Entitlements and Planning Framework

3.2.1 Water access entitlements

a) Completion of the conversion of water access entitlements to entitlement systems in line with the principles and timeframes of its 1994 Water Reform Framework commitment

The WMA 2000 achieves the separation of water entitlements from land by redefining entitlements for access licenses. The share component entitles the holder of an access licence to specified shares in the available water within a specified water management area or from a specified water source. The extraction component enables the holder to take water at specified times, at specified rates or in specified circumstances, or in any combination of these, and in specified areas or from specified locations via s56:

(1) An access licence entitles its holder:

(a) to specified shares in the available water within a specified water management area or from a specified water source (the **share component**), and

(b) to take water:

(i) at specified times, at specified rates or in specified circumstances, or in any combination of these, and

(ii) in specified areas or from specified locations, (the **extraction component**).

(2) Without limiting subsection (1) (a), the share component of an access licence may be expressed:

(a) as a specified maximum volume over a specified period, or

(b) as a specified proportion of the available water, or

(c) as a specified proportion of the storage capacity of a specified dam or other storage work and a specified proportion of the inflow to that dam or work, or

(d) as a specified number of units.

(3) Shares in available water may be assigned generally or to specified categories of access licence.

(4) In the case of a local water utility licence, its share component is to be expressed as a specified volume per year.

(5) For the purposes of this Act, an access licence may also be referred to as a **water access licence** or a **WAL**.

(6) (Repealed)

Note. An access licence:

(a) does not confer a right on any person to use water for any particular purpose (that right is conferred by a water use approval), and

(b) does not confer a right on any person to construct or use a water supply work (that right is conferred by a water supply work approval).

Notwithstanding the rights conferred by an access licence, a holder may still be required to obtain other approvals to use water for a particular purpose or to construct water supply works. Transferability is then established under s71:

71 Water Access Licence Register

(1) The Minister is to keep a Water Access Licence Register for the purposes of this Act (the **Access Register**).

(2) In the Access Register, there is to be a division recording the matters specified in section 71A (1) (the **General Division**) and a division recording the matters specified in section 71A (2) (the **Assignment Division**).

(3) The Access Register is to be kept in the form and manner determined by the Minister.

(4) Without limiting subsection (3), the Access Register may be kept in the form of a computer record.

The separation of water entitlements from land is an important matter for the NWI as it is first step to establishing a tradeable entitlement in water. However, the importance of creating an entitlement which represents a share of the available water as opposed to a volumetric entitlement cannot be overstated.

Allocating consumptive water users a share of available water recognizes the competing uses of water for the environment and for basic landholder rights and the need to share water between those uses. From a legislative point of view NSW has met its COAG commitment. The real question, as will be seen throughout this paper, is whether in implementing the WMA 2000 the underlying objectives of putting in place the entitlements system are being met.

The NWI sought to create further certainty in the entitlement system by defining water access entitlements as a perpetual share of the consumptive pool. NSW is one state that has legislated to "specify water access entitlements as a perpetual share of the consumptive pool". As a result of amendments to the WMA 2000 in 2004, previous sections 69 and 70 of the WMA 2000, which provided for entitlements of up to 20 years duration, were deleted and replaced with the following:

69 Duration of access licence

An access licence ceases to be in force on the date that the cancellation of the licence is recorded in the Access Register.

This effectively established licences that operate in perpetuity, or until surrendered, revoked, or cancelled. Accordingly, NSW has put in place a legislative regime which provides licence holders and third parties with certainty about the ongoing existence of the entitlement. However, in our opinion, this certainty continues to be illusory. The State continues to have the power to revoke or cancel licences, albeit with compensation payable in certain circumstances.

The NGOs raised a number of concerns about the introduction of perpetual licences in NSW. Those concerns included the fact that there were a substantial number of sleeper and dozer licences which would significantly increase in value, putting additional pressures on already over-allocated water systems. Further, the creation of a perpetual licence was giving irrigators a windfall benefit without requiring any responsibility or environmental stewardship in return for that benefit. The concerns, particularly about the activation of sleeper and dozer licences remain current today.

b) Demonstration of the commencement of incorporation of the National Water Initiative water access entitlement requirements into its legislative and administrative regimes

i. Water allocations that recognize both consumptive and environmental water needs

The WMA 2000 was one of the first pieces of environmental legislation which provided a definition of specific classes of environmental water and required water management plans to contain environmental water rules (s8). The original WMA 2000 defined classes of environmental water and requires water management plans to contain environmental water rules (s8). However, 2004 amendments to the WMA 2000:

- changed the definitions of the classes of environmental water from three classes ("environmental health water", "supplementary environmental water" and "adaptive environmental water") to two classes ("planned environmental water" and "adaptive environmental water"); and
- provided that minimum quantities of environmental water no longer needed to be satisfied (s8(2)).

Current WMA 2000 s8:

s8 Environmental water

1. For the purposes of this Act, **environmental water** comprises the following:
 - a) water that is committed by management plans for fundamental ecosystem health or other specified environmental purposes, either generally or at specified times or in specified circumstances, and that cannot to the extent committed be taken or used for any other purpose (**planned environmental water**),
 - b) water that is committed by the conditions of access licences for specified environmental purposes, either generally or at specified times or in specified circumstances (**adaptive environmental water**).
2. A management plan must contain provisions for the identification, establishment and maintenance of planned environmental water (**environmental water rules**). The environmental water rules relating to a water source do not need to specify that a minimum quantity of water is required to be present in the water source at all times.
3. Environmental water rules are to be established for all of the water sources in the State as soon as practicable after the commencement of this section.
4. A management plan must contain provisions relating to adaptive environmental water.

Previous WMA 2000 s8:

The previous definition of "environmental water" in the WMA 2000 was:

8 Classes of environmental water

(1) The following classes of environmental water are recognised for the purposes of this Act:

- (a) water that is committed for fundamental ecosystem health at all times, and may not be taken or used for other purposes (*environmental health water*),
- (b) water that is committed for specified environmental purposes at specified times or in specified circumstances, but may, at other times and

in other circumstances, be taken and used for other purposes
(*supplementary environmental water*),

- (c) water that, pursuant to an access licence, is committed for specified environmental purposes, either generally or at specified times or in specified circumstances (*adaptive environmental water*).

The effect of the new definition is that "environmental health water" and "supplementary environmental water" are now combined within "planned environmental water". We understand that the change arose from practical difficulties on the part of the water management agency (DNR) in managing supplementary environmental water, particularly where WSPs provided for a number of classes of "environmental water" all purporting to relate to fundamental ecosystem health.

The NGOs were generally supportive of the new s8 definition and the removal of an arbitrary distinction between "fundamental" and "other" environmental health purposes. However, the new s8 also has the effect that planned environmental water is now not committed "at all times" as "environmental health water" previously was (WMA 2000 s8(1)(a)). This change may potentially have a negative effect on ecosystem health. The removal of "at all times" from s8(1)(a) was not necessary to provide for intermittent flows that can closer replicate natural conditions, as this was provided for in s8(2). Previous s8(1)(a) and s8(2) enabled *both* a certain amount of water to be maintained in the river system at all times *and* for the timing of environmental flows to be managed (for example by holding the water in reserve for future events in a water storage). The current wording of clause 8 now only provides for environmental flows to be intermittent, not for water to also be committed for fundamental ecosystem health at all times.

- c) significant progress in the development of compatible, publicly accessible systems for registering water access entitlements and trades, including recognition of third party interests (such as the interests of financial institutions).

NSW has attempted to introduce a system whereby water access license are consistently drafted and are capable of registration. As noted by the 2004 assessment, the NSW system still falls short of creating indefeasibility of title, but NSW intends to be able to guarantee indefeasibility in the coming years. The water access licence register established pursuant to s.71 of the WMA 2000 is publicly available in a manner similar to land title documents, however, fees may be payable for comprehensive searches.

One issue to note about the current NSW register is that there remains a clear distinction between the way in which consumptive entitlements and other entitlements are expressed. Environmental water allocation and basic landholder rights remain linked to volumetric allocations, despite adaptive environmental water being linked to licenced entitlements. If NSW is to establish a trading system which allows the environment to be a participant in that system, there is a need for consistency in the expression of entitlements for all types of water and better transparency about the role of adaptive environmental water.

- d) report on the public consultation and education processes in place for the introduction or review of entitlement regimes.

The DNR has, in its former capacities as DLWC and DIPNR, prepared a number of fact-sheets about the changes to NSW water management regimes. Those factsheets are publicly available on the Department's website and we assume hard copies are available from regional offices.

- One of the difficulties in NSW is that although the WMA 2000 was gazetted in December 2000, it has only commenced in some areas of NSW. This means that there is public confusion about where the *Water Act 1912* applies (eg: in areas where there is no water sharing plan, such as for many unregulated water sources and some groundwater sources) and where the WMA 2000 applies. The DNR website does have links to enable members of the public to attempt to work out if the new regime applies. However, there are many people in rural NSW who do not have internet access and who remain uncertain about the effects of the changes.

3.2.2 Environmental and other public benefit outcomes

- a) water for environmental and other public benefit outcomes to be:

i. given statutory recognition;

Environmental water was given statutory recognition through the WMA 2000, as described in 3.2.1(b)(i) above (the s8 definition of "environmental water").

However, there have also been serious failures by regulators to ensure compliance with, or implementation of, the environmental water rules and extraction rules that do exist in WSPs. There is an urgent need for immediate on-ground reinforcement of the environmental flows agreed in WSPs. For example, in NSW in December 2004 approximately 36,000 megalitres (" **ML** ") of water existed in the Environmental Contingency Allowance for the Gwydir WSP to support specified environmental outcomes, such as bird-breeding events in the Gwydir wetlands. Though government authorities were advised by local landholders and the Department of Environment and Conservation (" **DEC** ") that at least 200 ML of water per day for a 10 week period was needed to support the breeding cycle of 4000 straw-necked ibis at that time, authorities released only 75 ML/day in the initial trigger period, much of which did not make it to the wetlands due to transmission losses. By the time increased flows in the order of 128ML/day was released in early January 2005 thousands of the ibis had abandoned their unhatched eggs. No robust, public investigation into the failure has occurred and DNR has not made information on the matter public. This incident is just one example to demonstrate that NSW is not adequately incorporating the ARMCANZ/ANZECC national principles and its responsibilities under the 1994 Water Reform Framework in implementing provisions of water to the environment.

ii. be given at least the same degree of security as water access entitlements for consumptive use;

The WMA 2000 contains a number of provisions which, in our opinion, provide environmental water with at least the same security as other water access entitlements. This priority is created through the inter-relationship between the objects of the Act, the water management principles and the express obligation in section 9 of the WMA 2000 that it is the duty of all persons exercising functions under this Act:

(a) to take all reasonable steps to do so in accordance with, and so as to promote, the water management principles of this Act, and

(b) *as between the principles for water sharing set out in section 5 (3), to give priority to those principles in the order in which they are set out in that subsection [our emphasis].*

The objects of the WMA 2000 include:

3 Objects

The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations and, in particular:

(a) to apply the principles of ecologically sustainable development, and

(b) to protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality, and

...

The water management principles generally and in relation to water sharing include:

5 Water management principles

(2) Generally:

(a) water sources, floodplains and dependent ecosystems (including groundwater and wetlands) should be protected and restored and, where possible, land should not be degraded, and

(b) habitats, animals and plants that benefit from water or are potentially affected by managed activities should be protected and (in the case of habitats) restored, and

(c) the water quality of all water sources should be protected and, wherever possible, enhanced, and

(d) the cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems, should be considered and minimised, and

(e) geographical and other features of indigenous significance should be protected, and

(f) geographical and other features of major cultural, heritage or spiritual significance should be protected, and

(g) the social and economic benefits to the community should be maximised, and

(h) the principles of adaptive management should be applied, which should be responsive to monitoring and improvements in understanding of ecological water requirements.

(3) In relation to water sharing:

- (a) sharing of water from a water source must protect the water source and its dependent ecosystems, and
- (b) sharing of water from a water source must protect basic landholder rights, and
- (c) sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).

However in reality, many WSPs do not reflect this priority. In practice in NSW a lack of security for environmental water is a very serious problem. This issue was the subject of court challenge by the EDO in *NCC v Minister Administering the Water Management Act 2000* [2005] NSWCA 9.

- *NCC v Minister Administering the Water Management Act 2000* [2005] NSWCA 9

In this case the NCC was successful in arguing that the environmental water provisions in clause 14 of the Water Sharing Plan for the Gwydir Regulated River Water Source 2002 (" **Gwydir WSP** ") failed to provide "water that is committed for fundamental ecosystem health at all times, and may not be taken or used for other purposes" as required by s8(1)(a) WMA 2000 (in its original form). Clause 14 of the Gwydir WSP provided as follows:

14 Planned environmental water

This Plan establishes the following planned environmental water rules:

- (a) water volume in excess of the long-term extraction limit established in clause 30 of this Plan may not be taken from this water source and used for any purpose,

where clause 30 provided:

30 Volume of the long-term extraction limit

- (1) This Plan establishes a long-term extraction limit for this water source being the lesser of:
 - (a) the long-term average annual extraction from this water source that would occur with the water storages and water use development that existed in 1999/2000, the share components existing at the commencement of this Plan, and application of a limit on supplementary water access licence extractions of 1 megalitre per unit share and the other water management rules defined in this Plan, or
 - (b) the long-term average annual extraction from this water source that would occur under Cap baseline conditions.

The Court of Appeal upheld the NCC's submission on appeal (dismissed by the Land and Environment Court (" **LEC** ")) at first instance) that cl.14(a) "inverted" the requirements of s9(1)(b) by failing to include "environmental water rules" that met the definition in s8(2), because those rules only provided environmental water through what was "left over", not by guaranteeing a set amount of water for fundamental ecosystem health. In the words of Spigelman CJ:

"What is required is water that is constantly provided for and which, absent acute drought conditions, will in fact be available to protect "fundamental ecosystem health". To the extent water is present at all, priority is to be given to fundamental ecosystem health.

"In my opinion, cl 14(a) and cl 14(b) do not "identify, establish and maintain" any water for "fundamental ecosystem health" in a way that can be described as a "commitment" "at all times" of water that "may not be taken or used for any other purpose". Clause 14(a) and cl 14(b) rely upon cl 32 to ensure that water in excess of the long term extraction limit is not being taken. That provision, however, does not "identify, establish and maintain" any water that may not be taken. It assumes that water is taken.

". cl 14(a) and cl 14(b) invert the statutory requirement. A "bulk access regime" under cl 20(1)(e), including the recognition of limits to the availability of water under s20(2)(a), for which cl 30 and cl 32 of the Plan provide, must be established "having regard to" the environmental water rules established under s20(1)(a). However, cl 14(a) and cl 14(b) are environmental water rules established "having regard to" the bulk access regime. The statute requires the opposite to be done." **4**

The Court of Appeal unequivocally held that the Minister had failed to make an environmental health water rule in accordance with the statutory requirements of the WMA 2000. However, surprisingly, the Court was not prepared to exercise its discretion and declare the Gwydir WSP invalid. This decision is now the subject of an appeal to the High Court which is likely to be heard in early 2006.

A number of other WSPs for the NSW Regulated Rivers contain similar clauses, as follows:

WSP	Clause	Provision
Water Sharing Plan for the Lachlan Regulated River Water Source 2003	14 Planned environmental water	<p>This Plan establishes the following planned environmental water rules:</p> <p>(a) water volume in excess of the long-term extraction limit established in clause 31 of this Plan may not be taken from this water source and used for any purpose, and</p> <p>(b) water availability is to be managed as specified in clause 33 of this Plan to ensure water volume in excess of the long-term extraction limit is not being taken.</p>
Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2003	14 Planned environmental water	<p>This Plan establishes the following planned environmental water rules:</p> <p>(a) water volume in excess of the long-term extraction limit established in clause 30 of this Plan shall not be taken from this water source and used for any purpose, and</p> <p>(b) water availability shall be managed as specified in clause 32 to ensure water volume in excess of the long-term extraction limit is not being taken.</p>
Water Sharing Plan for the New South Wales Murray and Lower Darling Regulated Rivers Water Sources 2003	14 Planned environmental water	<p>This Plan establishes the following planned environmental water rules:</p> <p>(a) water volume in excess of the long-term extraction limit established in clause 31 of this Plan shall not be taken from this water source and used for any purpose, and</p> <p>(b) water availability shall be managed as specified in clause 33 to ensure water volume in excess of the long-term extraction limit is not being taken</p> <p>[though some allowance within the meaning of s8(1)(a) is made for the Barmah-Millewa in this plan, at clause 15(5)]</p>
Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2003	14 Planned environmental water	<p>This Plan establishes the following planned environmental water rules:</p> <p>(a) water volume in excess of the long-term extraction limit established in clause 30 of this Plan may not be taken from these water sources and used for any purpose; and</p> <p>(b) water availability is to be managed as specified in clause 32 of this Plan to ensure water volume in excess of the long-term extraction limit is not being taken.</p> <p>[some allowance is made for the Namoi River at Walgett by clause 15(2), however on our submission this is prevented from being in compliance with s8(1)(a) WMA 2000 above by virtue of clause 15(3)].</p>

In the view of the NGOs, current actions by NSW seriously call into question whether environmental water has been provided with sufficient protection and security that is equivalent to other access entitlements. For example in 2004 NSW changed the trigger threshold encapsulated in the operating rules for the Barmah-Millewa Forest Environmental Water Allocation for "paying back" environmental water for the Barmah-Millewa Forest. This was done to avoid paying back water allocated for the environment that had been "borrowed" in the previous year (as per the operating rules) by application of the "emergency" exception clause within the

rules. This sort of action puts at risk the security of environmental and consumptive entitlements on all river systems, and is contrary to the spirit and intention of the NWI. When environmental water already has the lowest volume of any other security of allocation, Implementation Plans and WSPs must specify that this sort of "borrowing" of environmental water is not to occur. For this reason state governments should also be provided with power via the Implementation Plan or WSPs to borrow water from extractive uses when needed for environmental emergencies.

(iii) be fully accounted for

The fact that environmental water is usually provided for as an "excess" above what is (presumed under the WSP as) required to maintain the socio-economic status quo means that environmental water is also still not fully accounted for.

The NGOs do not accept that "a robust examination of the socio-economic evidence" is a sufficient reason to justify inadequate allocation of environmental water in any systems from scientifically recommended volumes. Any such evidence should result in action by the government to acquire more water to meet these environmental requirements and socio-economic needs.

We also note the comments made in relation to water accounting in the CSIRO publication *Robust Reform: Implementing robust institutional arrangements to achieve efficient water use in Australia* (Young MD, McCol JC, November 2003)(" **the CSIRO document** ", discussed further at 3.3 below, in relation to water trading). As noted in that paper, to date the environment has received indirect "benefit" as a result of the way in which water has previously been accounted for in the water cycle; for example, 1000ML licences may have resulted in less than 1000ML actually being extracted by the licensee due to channel capacity & constraints. Further, once applied to land it may return to the river system by runoff or through percolating groundwater. These types of issues are not currently accounted for in the water accounting system and as efficiencies increase, these environmental benefits will be lost if not properly accounted for.

(iv) only be made available for temporary (and not permanent) trade when not required to meet the environmental and other public benefit outcomes sought and only when not in conflict with obtaining those outcomes.

In theory, only adaptive environmental water is available for trade under the WMA 2000. However, in effect *all* other environmental water is available for trade in many of the WSPs, as it is only provided for as an "excess" above standard extraction levels as described above, and is not "*water committed for fundamental ecosystem health*" (s8(1)(a)) or "*water that is committed by management plans for fundamental ecosystem health or other specified environmental purposes.that cannot to the extent committed be taken or used for any other purpose*" (s8(1)(a)).

3.2.3 Water planning and addressing currently overallocated and/or overused systems

a) securing of ecological outcomes by describing the environmental and other public benefit outcomes for water systems and describing the appropriate water management arrangements to achieve those outcomes

The NWI Water Planning Framework is the key mechanism to secure environmental outcomes and resource security. In theory, section 7(1) of the WMA 2000 provides for the Minister to classify water sources under the WMA 2000 (by order published in the Gazette, with the concurrence of the Minister for the Environment - s7(2)) on the basis of:

- "risk": the extent to which harm to the water source or its dependent ecosystems is likely to occur;
- "stress": the extent to which harm to the water source or its dependent ecosystems has occurred or is occur); and
- "conservation value": the extent to which their intrinsic value merits protection from risk and stress.

In practice however, none of these categories have been applied to river systems in NSW via the formal mechanism in s7(1), despite the WMA 2000's stated intention of classifying the NSW rivers in accordance with this section within 12 months (s7(4) WMA 2000).

The NSW Healthy Rivers Commission (" **the HRC** ") prepared a number of reports assessing the health and levels of stress of the majority of the major river systems in NSW in the late 1990s. These reports provided invaluable information for water managers, however, it is not clear whether the reports have been actively used by DNR and its predecessors to inform decisions about prioritizing water planning. Further, the HRC was disbanded not long after the reports were finalized, as part of a restructure of water management agencies.

At present, NSW has not formally met the requirements of publishing full assessments for the catchments and water sources defined under the WMA 2000. The NGOs support plans of the NWC to initiate a full understanding of water requirements for environmental outcomes through a full and ongoing assessment of the health of Australian rivers. With this knowledge management must be adapted to more adequately address environmental needs and overcome pressures on those needs.

b) .

c) *reduce extraction levels in overallocated and/or stressed surface or groundwater systems.*

The NGOs are concerned that the evidence from the HRC and a number of other studies clearly demonstrated that many river and groundwater systems in NSW were overallocated. However, in most instances, particularly with surface water WSPs, the rules within the plans do little to reduce consumptive entitlements to address that overallocation. In most instances, the share of the available water resource remains at 1 unit per ML.

Further, although the NSW *State Water Management Outcomes Plan* (" **SWMOP** ") (established under the WMA 2000 to "set the over-arching policy context, targets and strategic outcomes for the management of the State's water sources" (WMA 2000 s6(2)(a)) has an objective of protecting and/or restoring water sources, this objective does not go as far as specifically returning overallocated systems to sustainable levels of extraction or yield.

Accordingly in NSW, no plan to address overallocation that complies with the standards in NWI guidelines has been produced, and over-allocation is perpetuated in inadequate WSPs.

Identifying and prioritising overallocated systems must be a priority in NSW when incorporating the NWI into the IP, CAPs 5 and current WSPs. In particular, NSW has still not commenced the five groundwater plans required under the NWI despite grave overallocation in most of those systems. The NGOs understand that the reason that these plans have not commenced is that there is uncertainty as to the best management regime (in order to promote both environmental and socio-economic outcomes) for those groundwater systems, as recognized by the criticism of one of those groundwater plans in the case of *Murrumbidgee Groundwater Preservation Society Inc v Minister for Sustainable Natural Resources* [2005] NSWCA 10.

- *Murrumbidgee Groundwater Preservation Society Inc v Minister for Sustainable Natural Resources* [2005] NSWCA 10 (" **MGPS case** ")

The MGPS case dealt with a challenge to the *Water Sharing Plan for the Lower Murrumbidgee Groundwater Sources 2003* (" **GWSP** "). The plan covered an area of over 33,000 square kilometres and involved three aquifers known as the Shepparton formation, the Calivil formation and the Renmark group. The applicant in the proceedings was an association of primary producers who relied upon water from the Lower Murrumbidgee aquifers.

During the 1980s, officers of the Department of Land and Water Conservation had adopted a policy and developed rules that encouraged farmers to extract water from aquifers in order to address problems relating to salinity. These rules often had little regard to the impact of the extraction on the sustainable yield and recharge rates of the aquifer. By 1998, the Lower Murrumbidgee ground water management area had been identified as a high risk ground water system and the risks identified included over-allocation of extraction, local draw-down and interference between bores and invasion of aquifers by saline ground water.

The intent of the GWSP was to address the significant over-allocation of entitlements to extract ground water promulgated under the old *Water Act 1912* regime. In order to do this, the plan proposed reducing actual groundwater use over a ten year period to a level that equated to the annual average recharge less a specific quantity of water reserved for the environment. The GWSP contained two mechanisms for dealing with the impact of the reduction in entitlements on water users. First the creation of a market in access licences, with associated access licence dealing rules. Second, the issue, for a number of years, of supplementary water access licences to those users who had, in the past, taken a high percentage of their entitlements to extract water. The plan also involved an across-the-board cut in entitlements. In both the LEC and Court of Appeal the Society argued that, in the absence of "proven" interconnectivity between the various ground water systems, the cuts in entitlements were perverse as they did not serve the objective of limiting extractions to sustainable yield. Complex hydrogeological evidence in relation to the interconnectivity of the aquifer and the appropriate regime for managing extractions from the aquifer, was put before the LEC. Having regard to that evidence, his Honour McClellan CJ expressed the view that

"Although the evidence discloses that over a great many years the aquifer may function as a single body of water which would justify a uniform reduction in entitlements, there are obvious anomalies in basing the Plan on these principles. .. I am also satisfied that by imposing a uniform

reduction on all irrigators, irrespective of their capacity to use the water theoretically available under the licence, the Plan will operate unfairly on some irrigators in a manner that could have been avoided." 6

Although the Court of Appeal was not prepared to declare the GWSP invalid on the basis that the regime adopted by the Minister was perverse or illogical, it was nevertheless very aware that the regime operated unfairly.

What this case demonstrates is that the initial process of developing the WSP and determining rules to reduce entitlements was not based on the most appropriate scientific arrangements and evidence, instead, it was driven by political decisions about pro rata entitlement cuts. The NGOs understand that the DNR is in the process of reformulating the plans to achieve more appropriate and outcomes, however, it is clear that in order to address overallocation, there will be a need for compensation and or structural adjustment payments to be made to irrigators to address their reduced entitlements.

d) Open processes and clear pathways for returning overallocated and/or stressed surface and groundwater systems to environmentally sustainable extraction levels help address the productive, social and/or environmental issues that arise during the subsequent reduction and/or re-allocation of water.

The two case studies of *Murrumbidgee Groundwater Preservation Society Inc v Minister for Sustainable Natural Resources* (3.2.3c) and *NCC v Minister Administering the Water Management Act 2000* (3.2.2(a)(ii)) referred to above show that there are a number of problems, identified by both conservation groups and irrigators, with the way in which water sharing plans operate in NSW. At present, if water sharing is regulated by the WSPs, it is very unlikely that overallocated and/or stressed systems will be returned to sustainable levels in accordance with the NWI timeframes. The NSW plans operate for a 10 year period, and can also be extended upon a review by the NRC against statewide targets and standards. Further, the compensation provisions in s87 of the WMA 2000 require, in most instances, that compensation be paid if entitlements are reduced during the life of a WSP in a manner that is not in accordance with the provisions of the WSP. This is a matter of deep concern for the NGOs, who are skeptical about the likelihood of sufficient political will (and budgetary funding) on the part of the NSW government to take action that would result in a need to provide compensation.

In addition, as noted above, many plans perpetuate the volumetric allocations that existed under the previous (*Water Act 1912*) scheme, which were developed using modeling that took into account all existing entitlements. The concern in relation to this is that in circumstances where "sleeper" and "dozer" licences increase in value, those licences are likely to be activated and additional pressures placed on the systems.

e) Arrangements that are :

- i. *based on the best available science and use strategic and applied research (principles 2 and 11);*
- ii. *achieve a balance between environmental needs and human use that provides the water needed to achieve the environmental outcomes, while recognising, in systems where there are existing users, the existing rights of those users (principles 1, 4, 5, 6 and 9);*
- iii. *involve monitoring and adaptive management where the regular assessment of ecosystem health guides water management processes (principle 8); and*
- iv. *involve stakeholder consultation and transparent processes that are robust, and ensure the timely provision of relevant information to all interested parties (principles 7 and 12).*

The failure of WSPs to implement water sharing arrangements that provide environmental flows based on the best science is a matter of grave concern for the NGOs. Evidence from water management (advisory) committees has been that plans were not developed based on best scientific evidence and an understanding of the needs of independent ecosystems, but were often simply the outcome of attempts to reach consensus - most commonly by agreeing on the "middle range" extraction levels between the various interests' ambit claims. For example in relation to the Gwydir WSP, the minutes of the Gwydir Management Committee show that the representatives on the committee from DEC and the conservation groups argued that 70-120 000 ML/year was required to maintain and restore the health of the Gwydir wetlands, while the irrigation representatives proposed 0-25 000 ML/year for that purpose. In that case, the result that the Committee agreed upon was an ECA of 45 000 ML/year. This means that currently, the Gwydir wetlands are receiving on average between 35 000 and 75 000 ML per year *less* than is required for optimum health based on the best science.

This example and the cases of *MGPS* and *NCC v Minister Administering the Water Management Act 2000* show

that in reality the norm for WSPs and water sharing rules is largely for them to be developed on the basis of existing entitlements and conclusions from modelling the impacts of reductions of arbitrary volumes of environmental flows, not on the basis of the best science available as to specific ecological needs of that system. The aim has effectively been to minimise impacts on existing socio-economic regimes, not to ensure "fundamental ecosystem health". Given the above, it is clear that requirements of ARMCANZ/ANZECC national principles 1, 4, 5,6 and 11 (incorporated in e)(i)-(ii) of the 1994 COAG reforms) are not being met in relation to NSW WSPs.

There is some prospect that the failure in the WSPs to base water allocation decisions on the best available science could be in future be remedied by the creation of the new Natural Resources Commission (" **NRC** ")(cf. *Natural Resources Commission Act 2003*), the specific functions of which are (relevantly) to:

13 Specific functions

The Commission has the following functions:

- (a) to recommend State-wide standards and targets for natural resource management issues [defined to include water management];
- (e) to co-ordinate or undertake significant natural resource and conservation assessments as required by the Minister,
- (f) to undertake inquiries on natural resource management issues as required by the Minister,
- (g) to assist in the reconciliation of particular complex natural resource management issues that are referred to the Commission by the Minister,
- (h) to advise the Minister on priorities for research concerning natural resource management issues,
- (i) to arrange for information to be gathered and disseminated on natural resource management issues.

However, the standards and targets of the NRC have not been finalized, publicly released or gazetted. Environment groups have been invited for some informal updates but no formal nor transparent public consultation processes have been conducted. At the same time, Catchment Management Authorities have been asked to develop Catchment Action Plans (" **CAPs** "), to be finalized between September and December 2005. Once implemented, CAPs will have a 10 year span. In addition the NGOs are informed that the Government is developing "Macro Plans" for the water sources not currently covered by WSPs, that is, groundwater and unregulated water sources. It seems very likely that the two sets of plans will be adequately integrated or will include finalized standards and targets.

In addition, most of the WSPs have now been gazetted and have a life of 10 years, and the water access licences under the WMA 2000 are now perpetual (c.f. WMA 2000 s69, 3.2.1(a) above). As discussed in 3.2.2(d) above, this means that the alteration of environmental water rules in WSPs to reflect the best available science or even to reduce extraction to below levels of serious overconsumption will be difficult, not least because of the need to provide compensation in many circumstances.

For the same reasons the NGOs are also concerned about the ability of NSW to meet the requirements relating to monitoring and adaptive management. In particular, concern has been raised about the adequacy of many of the purported "performance indicators" in the WSPs. Section 35 of the WMA 2000 provides:

35 Format of management plan

- (1) A management plan must include the following components:
 - (a) a vision statement,
 - (b) objectives consistent with the vision statement,
 - (c) strategies for reaching those objectives,
 - (d) performance indicators to measure the success of those strategies.

Many WSPs have performance indicators that do not genuinely "measure" the success of the strategies proposed to achieve the outcomes set out in the vision statement as required by s35(1)(d). In fact, many of them would be better described as "strategies", covered by s35(1)(c). For example, the performance indicators stated in the Gwydir WSP are as follows:

12 Performance indicators

The following indicators are to be used to determine the performance of this Plan against its

objectives:

- (a) change in ecological condition of this water source and dependent ecosystems,
- (b) change in low flow regime,
- (c) change in moderate to high flow regime,
- (d) change in water quality in this water source,
- (e) extent to which domestic and stock rights requirements have been met,
- (f) extent to which local water utility requirements have been met,
- (g) change in economic benefits derived from water extraction and use,
- (h) extent of recognition of spiritual, social and customary values of water to Aboriginal people, and
- (i) extent to which native title rights have been met.

Note. Appendix 4 details the objectives to which these performance indicators relate and the methods for assessing indicators.

[Appendix 4 sets out four columns: the performance indicator; the objective it relates to (under s35(1)(b)); how it is to be measured; and a commentary.]

The WSP vision statement, objectives and strategies are set out in clauses 9-11 of the Plan, as follows:

9 Vision

The vision for this Plan is to have a sustainable, healthy river system that provides reliable water through flow management for the community, environment, agriculture and industry.

10 Objectives

The objectives of this Plan are to:

- (a) protect, maintain and enhance the environmental values of the Gwydir Regulated River Water Source,
- (b) manage the Gwydir Regulated River Water Source to ensure equitable sharing of water between all uses,
- (c) protect the Gwydir Regulated River Water Source by ensuring that extraction minimises any adverse impacts,
- (d) improve water quality in the Gwydir Regulated River Water Source,
- (e) provide opportunities for ecologically sustainable market based trading of surface water entitlements in the Gwydir Regulated River Water Source,
- (f) manage the Gwydir Regulated River Water Source to preserve and enhance basic water rights,
- (g) ensure extraction from the Gwydir Regulated River Water Source is managed properly within the Murray Darling Basin Ministerial Council Cap, and
- (h) manage the Gwydir Regulated River Water Source to preserve and enhance cultural and heritage values.

Note. Although there are no specific strategies directly related objective (h) in this Plan, the environmental water provisions in the Plan make a contribution towards the preservation of cultural and heritage values.

11 Strategies

The strategies of this Plan are to:

- (a) establish environmental water provisions (Part 3 of this Plan),
- (b) identify water requirements for basic landholder rights (Part 4 of this Plan),
- (c) identify water requirements for access licences (Part 6 of this Plan),
- (d) establish rules for granting of access licences (Part 7 of this Plan),
- (e) establish provisions that place limits on the availability of water (Part 8 of this Plan),

- (f) establish rules for making available water determinations (Part 8 of this Plan),
- (g) establish rules for the operation of water accounts (Part 9 of this Plan),
- (h) establish provisions specifying circumstances under which water may be extracted (Part 9 of this Plan), and
- (i) establish access licence dealing rules (Part 10 of this Plan).

The performance indicators in cl10 of the Gwydir WSP do not set a fixed quantity or quality that enables the success of the plan in achieving its objectives to be independently verified, which is among other things crucial to ensure the public participation objectives of the COAG reforms. In other words (leaving aside the matter of cl 12(a) - (d) not specifying whether the change must be "positive") none of 12(a) - (d) provide a mechanism to enable the public to ascertain whether (for example) the environmental water provisions referred to in s11(a) have *in fact* contributed to the Gwydir WSP's reaching the objective of (10 (a)) "*protect(ing), maintain(ing) and enhanc(ing) the environmental values of the Gwydir Regulated River Water Source*", or whether those provisions need to be changed in order to reach the 10(a) objective. Rather, performance indicator cl 12(a) just re-states the cl 10(a) objective.

What is required instead is some sort of *measurable* factor that can truly "indicate" whether objective 10(a) has been met.

This is better reflected in the requirements for CAPs via the *Natural Resources Commission Act 2004*, which requires the NRC to perform the following functions:

13 Specific functions

The Commission has the following functions:

- (b) to recommend the approval, under the *Catchment Management Authorities Act 2003*, of catchment action plans of catchment management authorities that are consistent with State-wide standards and targets adopted by the Government for natural resource management issues;
- (c) to undertake audits of the effectiveness of the implementation of those plans in achieving compliance with those State-wide standards and targets as it considers appropriate [our emphasis].

Without measurable performance indicators, the WSPs do not contain any self-regulating mechanism to assess whether the ecological outcomes sought by the COAG reforms are being met. On this basis, and given that many of the WSPs still do not incorporate *measurable* performance indicators that enable a third party to ascertain whether the objectives have been met, the NGOs submit that the current WSPs do not meet the requirements of the COAG reforms.

e) jurisdictions' progress in meeting their commitments regarding the overallocated and/or stressed river and groundwater systems.

As discussed in relation to 3.2.2(a)(ii) (the "inversion" of the requirements of the WMA 2000 to securely allocate water to the environment) and 3.2.3(e) above (the allocation of water in order to maintain a perceived socio-economic status quo rather than to restore environmental health), the NGOs submit that the majority of the current water sharing plans do not allocate sufficient water to the environment, and do not implement some of the fundamental mechanisms to do so required by the COAG agreement.

i. *demonstrate an integrated catchment and natural resource management approach*

- Overland Flow Harvesting and Integration of Floodplains

NSW has not yet begun to address the issue of harvesting overland flows or the integral connection between floodplains and rivers. There is currently illegal harvesting of overland flows in NSW and no clear rules or enforcement guidelines that deal with the issue. Nor have adequate resources been allocated to deal with the problem. The current farm dams policy is not sufficient for dealing with this issue, particularly as its focus is on smaller upper catchment dams. There are a great deal of unauthorised levees in lowland areas in NSW that are feeding water into off-stream storages that are not captured within this policy and are not taken seriously by the government, particularly in terms of regulation and enforcement. Floodplain management and drainage management was to be addressed in a more specific and detailed manner in water management plans under the *Water Management Act 2000*. Instead the NSW government has only dealt with issues of instream water sharing under the WSPs. An audit and analysis of the impact of such harvesting on natural flow patterns and total flow levels must be done immediately, followed by a detailed policy to regulate harvesting and adequately deal with illegal harvesting.

There is also inadequate recognition in policy and legislation of floodplains as being part of the river system. This has meant that development on floodplains is going largely unchecked, which has limited NSW's ability to effectively provide environmental water, particularly to overallocated systems, or to even manage future risk. NSW needs to develop a more comprehensive and clear policy on floodplain harvesting and look to implement a Cap on it.

- Separate groundwater and surface water WSPs

The NGOs are concerned that as separate WSPs exist for groundwater and surface water respectively, sustainable levels of extraction in these interconnected systems cannot be ensured under the current WSP framework.

3.2.3 Assigning risks for changes in allocation

It is imperative that the NSW government integrates a risk assignment framework into their regimes as soon as possible. It is also important that such a framework includes the impacts of climate change. To date, although NSW agreed to the risk assignment framework set by the NWI in June 2004, it has not amended the WMA 2000 to incorporate that assignment framework into binding legal obligations.

Please also note the comments at 3.2.2(e)(i) above regarding the necessity of adequately managing overland flows and harvesting, particularly in overallocated systems, as an important first step in dealing with current imbalances and lack of knowledge about what overland flows can attribute to instream flows.

3.2.4 Indigenous access

While the importance of indigenous access to and connection with river systems is acknowledged in the WMA 2000 (e.g.: the objective in s3(c)(iv), membership of water management committees under s13(e), the water management principle in s5(2)(e)), there is only a right to a water allocation for indigenous use where native title rights have also been established:

55 Native title rights

- (1) A native title holder is entitled, without the need for an access licence, water supply work approval or water use approval, to take and use water in the exercise of native title rights.
- (2) This section does not authorise a native title holder:
 - (a) to construct a dam or water bore without a water supply work approval, or
 - (b) to construct or use a water supply work otherwise than on land that he or she owns.
- (3) The maximum amount of water that can be taken or used by a native title holder in any one year for domestic and traditional purposes is the amount prescribed by the regulations.

The assumption has been that "indigenous use" is included in the environmental water component. The fact that environmental water does not have security of access and in most cases is allocated well below the amounts recommended by scientific research means that allocations for indigenous use are also not being properly provided for.

3.2.5 Interception

NSW has not put appropriate management or regulatory measures in place to address the problem of unauthorized water interception, primarily through a lack of capacity and resources on the ground. As discussed in 3.2.2(e)(i) above, here is evidence of illegal water harvesting and development of levees and NSW has not provided sufficient capacity to consider this issue. Further, there is currently a complete failure to manage unregulated water sharing plans and ensure the water rules are being followed.

3.3 Water markets and trading

Water market accounting systems need to be restructured to take into account a wide variety of complexities and environmental externalities that are currently excluded. These matters have been comprehensively traversed by the CSIRO in its publication *Robust Reform: Implementing robust institutional arrangements to achieve efficient water use in Australia* (Young MD, McColl JC, November 2003) ("the CSIRO document"). In that publication the authors state as follows:

"The accounting systems [in the Southern Connected River System] are not robust. They do not guarantee that when one person or one process uses more water, another uses less. Significant omissions include the influence of land-use changes that reduce recharge and run-off to the river,

as well as the impact of increases in water use efficiency and river flow. Other important omissions include the effects on river flow of salinity interception schemes, and development of inter-connected groundwater resources."

The amount lost in river flow and allocations to irrigators of these effects (as compared to 1993/94 amounts) are summarized in the following table (p5 of the CSIRO document):

Design omission	Net effect
Reduced drainage and groundwater returns to the River resulting from water use efficiency savings	-723GL
Reduction in water yield from catchment land-use changes e.g.: increased forestry and farm dam development	-600GL
Reduced groundwater flow to the River as a result of increased installation and operation of Salinity Interception Schemes	-20GL
Reduced groundwater flow to the River from increased groundwater use	-349 GL
Estimated net reduction in mean river flow and allocations to irrigators	-1692 GL

This table also does not take into account reductions in river flow due to climate change, which the NGOs are concerned will amount to a significant, and perhaps dramatic, impact.

We also note in this document the comment that a "robust" Cap would be a cap on entitlements, not on diversions. This would enable the above hydrological realities to be taken into account.

3.4 Best practice water pricing and institutional arrangements

3.4.1 Water storage and delivery pricing

Rural water is a severely underpriced resource and needs to be appropriately priced to ensure that its economic and environmental value is balanced and issues such as overextraction are not perpetuated.

NSW rural systems must not only achieve lower bound cost recovery but also upper bound cost recovery. It is imperative to incorporate the full cost of water delivery and management, including environmental costs, into the price of water. In particular, full cost recovery should be required on water supplied by new water supply infrastructure, and the ability to recover these costs should be considered and demonstrated in a transparent manner prior to approval. Unfortunately, no price path has yet been determined for achieving full cost recovery in NSW. The NWC should require NSW to at least achieve lower-bound cost recovery without further delay.

The NSW Independent Pricing and Regulatory Tribunal (" **IPART** ") still have a long way to go before rural bulk water prices or urban water pricing reflect the full cost of the water resource. Significant issues with regards to rural water pricing that were a concern in 2004 continue to be so, including:

- The exclusion of environmental costs from the cost of water;
- The maintenance of artificially low water prices to support marginal users;
- The determination of prices at a state level and so not allowing for valley to valley variations in externalities;
- The socialisation of delivery costs along lengthy and disparate river reaches.

All of the above have led to water in NSW continuing to be significantly under-valued and under-priced.

However, the NGOs do support the provision of transparency and accountability through bodies such as IPART, on the basis that it allows the community to have a greater understanding of the pricing and regulatory environment and contribute informed comment.

3.4.3 Investment in new or refurbished infrastructure

In NSW, recent changes have been made to the *Environmental Planning and Assessment Act 1979* (" **EP&A Act** ") that alter the environmental impact assessment procedures for major projects and critical infrastructure (new Part 3A). The NGOs have a number of concerns about the broad scope of the powers given to the Minister for Planning in these changes to assess and approve large scale developments such as dams, the Shoalhaven transfer infrastructure and the proposed desalination plant under the changes. Not only do the new procedures give the Minister discretion in relation to the level of environmental assessment for the projects, they also potentially limit the opportunity for public scrutiny and review of decisions to approve such works. The operation of these new provisions will largely curtail the state's ability to adequately establish the ecological sustainability credentials of infrastructure proposals. This will mean that NSW may not be able to adequately consider the environmental impact of significant water projects.

The valuing and exclusion of large infrastructure costs also remains a challenge: currently only maintenance costs are included and the construction and replacement costs are excluded (see also comments under 3.4.1 above).

3.5 Integrated management of water for environmental and other public benefit outcomes

3.5.1 Institutional arrangements

Clauses 78 and 79 of the Agreement are important inclusions in the NWI as they look to establishing and equipping environmental water managers who are accountable for the provision of environmental water at the right time and place to achieve outcomes in accordance with the plan. It is important that NSW demonstrate how it will establish well-resourced and accountable Environmental Water Managers as part of this assessment.

3.5.2 Water recovery for environmental outcomes

In 2005 the NSW Government took the long overdue step of implementing the Murray Darling Basin Cap (" **the Cap** ") in the Barwon Darling region. We support the implementation of the Cap, but a number of the elements of the strategy limit the Cap's overall effectiveness at present. These are:

- That the startup allowance of 173 GL will result in cumulative diversions exceeding Cap indefinitely;
- That establishing a yearly credit of 173 GL rather than setting climate-adjusted yearly diversion targets will result in an inflated cap that places all risk of climate change on the environment;
- That continuous accounting stands to allow enormous diversions at inappropriate times and artificially inflate user security.

In the NGOs' opinion the flaws in the proposed cap strategy may severely limit the Cap's effectiveness in holding future diversions to a level that genuinely reflects 93/94 levels of development.

There has also as yet been no purchase or use supplementary water for the environment, despite the fact that some areas, for instance the river red gums along the Murray River, are highly stressed.

3.7 Urban water reform

3.7.1 Demand management

3.7.2 Innovation and capacity building to create water sensitive Australian cities

The NGOs stress that there is an essential long-term element missing in the NWI assessment framework: the concept of a long-term sustainable urban water supply. Such an urban water supply is one that is both sustainable for the people living in urban areas and is ecologically sustainable for the rivers and other environments, relying on ground and surface water.

In the NGOs' view, while demand management and capacity building to create water sensitive urban design are important, they are token efforts compared with the water supply challenges Australian cities are facing. These efforts alone will not solve the long-term water supply for urban areas, nor will they solve the issues associated with the discharge of wastewater from urban areas. If we are to develop a long-term sustainable urban water supply we must review existing water infrastructure as well as the new water supply infrastructure, and diversify water supplies so as not to impose additional stress on natural water resources.

It is acknowledged that urban water is being sourced from (mostly coastal) rivers and other water sources outside (or underneath) the urban fringe. Sourcing water for urban purposes may have major and permanent adverse environmental impacts when priority is given to urban water supply before adequate water is allocated for the environment. By damaging the environment that provides the water, the water source may be

perpetually damaged or depleted. Therefore, the framework should assess whether enough water is allocated for the environment prior to allocating it to other "user groups".

To date, many urban centres in NSW are close to breaching their so called "sustainable yield". In some instances the sustainable yield has been breached while no alternative water sources are in place - thus depleting the water source/rivers/groundwater aquifer. In some instances, people have been misinformed about sustainable yields.

In NSW, unsustainable, short-term "quick fixes" are being implemented to augment water supply for urban areas, rather than a long-term, sustainable integrated water management plan for the catchments that provide water to the cities. An example of this is the proposed desalination plant in Sydney, which has been pushed through as a critical infrastructure under the new part 3A of the EP&A Act. There has been no public consultation on the proposal and there will be no environmental or social impact study required under the new legislation.

Another example of short-term, unsustainable augmentation of urban water supply is the Clarence Valley and Coffs Harbour Regional Water supply project, which proposed to build a dam in Shannon Creek and a pipeline, opening up a secluded biodiversity hotspot that had 66 identified threatened species under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The environmental impacts of this will be enormous. There is currently no framework in NSW to stop unsustainable water supply augmentations like these. These damaging projects are also subsidized by NSW Government (Department of Utilities) and are widespread in NSW.

The NGOs propose that there should be a framework in place to stop inappropriate urban water supply augmentation. All options should be assessed and from that, the most long-term and sustainable option implemented first.

The NGOs also propose that systems be put in place to require water used to either be recycled or discharged at the same quality as when it entered the system, so that the environment and the people dependent on the environment are not adversely affected.

Recommendations

1. That the NWC Assessment Framework endorses the concept of a long-term sustainable urban water supply;
2. That long-term, sustainable initiatives for urban water supply are identified and the progress on the implementation of long-term sustainable water supplies are assessed for each state. A sustainable diversification of water supplies is using water sources that do not have adverse impacts on natural water resources. These options include the capture and recycling of stormwater, the treatment and recycling of sewage and wastewater and rainwater tanks.
3. That the NWC provides a framework whereby all sustainable options for supply sources are assessed and a ranking made (from most sustainable to least sustainable) according to a list of sustainability criteria, and the most sustainable option should be implemented first;
4. That the NWC provides a framework for penalizing unsustainable augmentations of urban water supply in states, such as inappropriate dams and desalination plants where the same volumes of water could be sourced from long-term sustainable water supply initiatives, such as water recycling projects;
5. That the NWC Assessment Framework cater for an assessment on the quality of wastewater discharge and potential environmental and human impacts and that a framework is developed for assessing the impact of wastewater discharge in rivers and oceans on the environment as well as human health.

Footnotes

1. The Agreement, para 95.
2. Agreement para 25.v
3. WMA Part 3 - Management Plans
4. 137 LGERA 320 (NSW Court of Appeal) per Spigelman J [para 66-68].
5. Catchment Action Plans under the *Catchment Management Act 2002*.
6. MGPA Case LEC - McClellan CJ at para 179-184

