



**Water Information**  
DATA › INFORMATION › INSIGHT

# National Water Account Workshop

Convened by the Bureau of Meteorology, 9 December 2008

## Report of the Workshop

Prepared by Denis Hussey, Facilitator



**Australian Government**  
**Bureau of Meteorology**

**Contents**

1 Introduction.....3

2 Background and Context.....4

3 Workshop Presentations .....6

4 The Roadmap .....8

5 NWA Objectives .....9

6 Reporting entities..... 11

7 NWA Proposed Form and Content ..... 13

8 Report Preparation and Review ..... 16

9 Governance Arrangements..... 18

10 Resourcing Preparation of the Pilot NWA ..... 19

Attachment 1: Workshop Participants ..... 20

Attachment 2: Workshop presentations..... 21

### 1 Introduction

The Bureau of Meteorology (BoM) convened a one day workshop in Melbourne on 9 December to discuss a National Water Account (NWA), and to assist the Bureau with the development of a process (Roadmap) for the production of the NWA.

Attachment 1 lists the workshop participants.

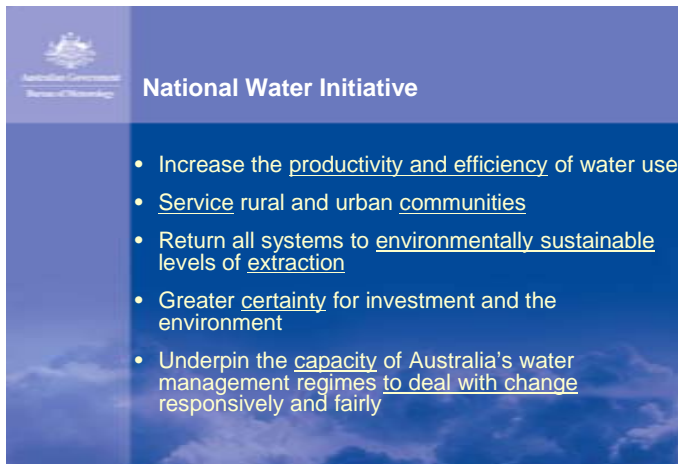
A brief pre-workshop memo prepared by BoM, workshop papers, and presentations to the workshop by BoM and others, provided background information. The information covered legislation, regulations and government agreements, relevant activities of the Council of Australian Governments (COAG) and its water sub-group (WSG), activities of various committees and projects, the Australian Water Account prepared by the Australian Bureau of Statistics (ABS), and a pilot water account project in Queensland.

The workshop focussed on BoM's thinking and progress to date in regard to the National Water Account, including various options put for consideration and discussion, and sought feedback and ideas from participants on this material and the way forward. The key outcomes will be incorporated in the Roadmap to be completed by February 2009.

This report of the workshop prepared by the facilitator provides background and context material, mainly supplied to or presented at the workshop, and summarises key points and conclusions.

## 2 Background and Context

The essential objectives of the Intergovernmental Agreement on a National Water Initiative (NWI), executed in June 2004, were summarised by BoM as follows:



Establishes the framework for water reform, and the impetus for national-consistency in water accounting activities

In January 2007 the Commonwealth announced A National Plan for Water Security. It proposed a \$10 billion, 10 point plan to improve water efficiency and address over-allocation of water in rural Australia, with a focus on the Murray-Darling Basin.

Point 8 of the Plan proposed “expanding the role of the Bureau of Meteorology to provide the water data necessary for good decision making by governments and industry.”

The subsequent Commonwealth *Water Act 2007* sets down a number of additional functions for BoM including:

*“compiling and maintaining water accounts for Australia, including a set of water accounts to be known as the National Water Account.”*

Among other obligations under this Act, the Director of Meteorology is required to publish annually this National Water Account in a form readily accessible by the public.

The Act provides no detail on the purpose, content and structure of the NWA although it does state that “the National Water Account is to include such matters (if any) as are specified in the regulations.” The Act makes it mandatory to provide information required by the BoM for, inter alia, the preparation of water accounts. Regulations provide the detail of what is required.

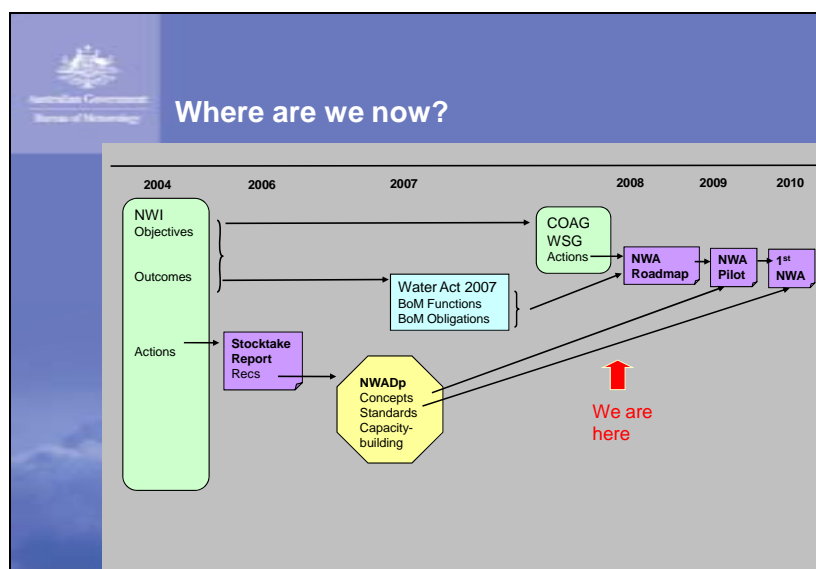
The accounting system standards and standardised reporting formats for the ‘set of water accounts’ are currently in development through the NWI by the National Water Accounting Development project. This project commenced in February 2007 and is due to finish in early 2010.

## National Water Account Workshop

In March 2008 COAG agreed to accelerate adoption of the national water accounting framework and established a project under the WSG to outline an approach to achieve this. The WSG have agreed, *inter alia*, to progress the work program on national water accounting through the following actions:

- a. The establishment of a National Water Account Committee (NWAC) to be chaired by BoM;
- b. The preparation of a roadmap by December 2008 [revised to February 2009] for the production of the National Water Account, giving consideration to: the priority areas for reporting (e.g. high risk or high conservation value); governance arrangements, reporting responsibilities, resourcing requirements; and proposed contents of the account and how they may change over time
- c. The publication of the first National Water Account by the Bureau of Meteorology, initially as a pilot, by December 2009
- d. The annual publication of comprehensive national water accounts by December 2010
- e. The reconstitution of the Water Accounting Development Committee as the Water Accounting Standards Board to advise the Bureau and NWAC on accounting standard matters
- f. The preparation of a national plan, by the end of 2009, for estimating rural water use [as a key input to water accounts]
- g. The use of the plan [in f. above] to guide future investments by governments in the modernisation and extension of non-urban water metering [for the improvement of both the management of, and accounting for, water use].

BoM presented the following timeline schematic of the process and progress to date:



### 3 Workshop Presentations

In addition to material presented as discussion openers by BoM during the workshop, four presentations on related topics were given. These are noted briefly here, along with key points arising from any discussion. Attachment 2 contains more details on the presentations.

The **National Water Accounting Development project** was established to develop water accounting, coordinate standards development, and assist jurisdictions with systems development where necessary.

The project is due for completion in February 2010. Key future work areas are to finalise the Australian Water Accounting Conceptual Framework, draft preliminary Australian Water Accounting Standards available for the preparation of the first NWA, and ongoing work with Pilot Projects, particularly the testing of standards and production of demonstration accounts.

The **Australian Water Account prepared by the Australian Bureau of Statistics** focuses on the supply and use (flows) of water within the Australian economy, and between the economy and the environment; measures how water is used by people and industries in the economy; is transparent and accessible; uses an international statistical standard - System of Integrated Environmental and Economic Accounting (SEEA); and is available in physical units (GL) and monetary units (\$). Discussion raised points on how these ABS statistics and ABS experience might relate to and help with the preparation of the NWA by BOM. The constitutional powers that enable the Commonwealth to require information to be provided to the Australian Statistician – who is a statutory office holder under Commonwealth legislation – are the same constitutional powers that enable the Commonwealth to require information, by the *Water Act 2007*, to be supplied to BoM for compiling national water accounts.

The NWA have different objectives than the ABS Australian Water Account. Also, ABS follows the international statistical standards appropriate for Australia and the NWA standards being developed according to the Australian Water Accounting Standards being prepared by WADCO.

Nonetheless, it was recognised that ABS experience in compiling a national water account (as well as other national environmental, financial, international and economic accounts) and possibilities for ABS to contribute were issues that needed to be discussed further between the two Bureaux. If ABS was to provide further assistance, for example by changing the timing and frequency of publication of their reports to align with the publication of an annual NWA by the BoM, then consideration of the Australian Statistician's resourcing would be important considerations.

**Water Regulations made under the *Water Act 2007*** were presented and briefly described using websites. The website links that were used are in Attachment 2.

This brief presentation outlined who must provide what information and within what timeframes under the Regulations, and the categories and sub-categories of information that have been defined. If nothing else, this material indicated the type and scale of information and data that the BoM would have access to for the preparation of the NWA. The alignment between this data set and the requirements of the NWA are yet to be determined.

**The Pioneer Valley Pilot project** has compiled a set of water accounts for this particular Queensland water resource plan (WRP) area.

WRPs are prepared under Queensland legislation for most of the State. The pilot was aimed at developing methodology and collecting information using a WRP area as the reporting entity. The aim was a set of water accounts which could meet the requirements of Queensland legislation and those expected of the national water accounts and to assist water management. Examples of the main components of the accounts were presented.

The pilot encountered and addressed challenges that will need to be addressed by all those required to provide reliable information and compile National Water Accounts. Of particular importance were the issues associated with data availability, and decisions on whether and how to measure or estimate to fill the gaps. In turn, this influences the reliability, credibility and usefulness of the National Water Accounts.

The presentation concluded with the following comments and questions which are all relevant to the preparation of National Water Accounts, and many of which were raised and discussed during the workshop.

- QLD could currently not produce Pioneer detail across State
- Need to understand what elements/sub-elements of NWA can be provided across catchments in QLD (nationally as well)
- NWA reports on what basis
  - Geographic: state; plan area; scheme area?
  - Entity: agency; utility; large user?
- Are NWA requirements to be regulated?
  - Scope of NWA
  - Transitional arrangements for implementation
  - Initial disclosures
  - Basic GPWAR
  - Full GPWAR
  - Timetable for implementation

## 4 The Roadmap

The Roadmap will set down how BoM, in cooperation with participating agencies, will go about preparing a pilot NWA by the end of 2009 and a comprehensive NWA a year later. This timetable was agreed at a recent meeting of the COAG WSG.

The Roadmap must capture not just the journey to the first NWA but also expectations of evolution and improvement over time. Key expectations are **improving accuracy** (as estimation and measurement techniques, and monitoring and reporting systems, improve) and **improving resolution** (as capacity increases).

At the workshop the broad content of the proposed *Roadmap* was outlined as follows:

1. Purpose (objectives) – NWI objectives and outcomes, Water Act and other legislative requirements.
2. Outputs – what will an NWA look like, what entities will we report against?
3. Guidelines – how will we coordinate roles?
4. Roles – who will be the leaders, facilitators, report preparers, reviewers?
5. Plan – steps, resource requirements, timeline.
6. Evaluation – how will we evaluate the success of the activity and capture lessons learned?

The workshop agreed that this Roadmap outline comprehensively covered what is required. The above six Roadmap items were all covered to varying degrees of detail during workshop presentations and discussion.

## 5 NWA Objectives

One high level NWI objective states the need for:

*“water accounting which is able to meet the information needs of different water systems in respect to planning, monitoring, trading, environmental management and on-farm management.”*

In the NWI it was further agreed:

*“...that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for environmental and other public benefit outcomes.”*

That is, measurement, monitoring and reporting that protects the integrity of the access entitlement system.

Clearly, the NWA must reflect the relevant objectives and actions set down in the NWI. It was suggested that they also should be suitable for measuring activities (e.g. what is a particular agency doing?), performance (e.g. of various water Plans) and compliance (e.g. use against entitlement). The importance of using the NWA to reconcile access rights with use was particularly stressed during discussion.

Should NWA include an economic dimension to assess the extent to which water was moving to highest value uses? Probably not at this early stage, although the data, which would have spatial and time dimensions, should be useful as inputs to economic analysis

A suggested key objective was that NWA be able to measure changes over time. One participant suggested a series of questions which NWA should be able to answer.

They were ('shorthand' version):

- How much water and where is it?
- Entitlements – holder, size and location?
- What Plans apply to constrain?
- Water made available under Plans and entitlements?
- What water taken by entitlement holders?
- How much of this water was traded?
- What water to the environment by virtue of rules, underuse, etc?

During this discussion a participant asked whether the NWA would only apply to 'managed water', and BoM said this was the focus. This raised the question of how

## National Water Account Workshop

'managed water' was defined, with one view being that all water was 'managed' one way or another. The general view was that the NWA must (eventually) account for all water, and this most certainly included groundwater.

A diversity of ideas and suggestions was indicative of the importance of first getting the broad or high level objectives clear and agreed before considering more detailed purposes the NWA may fulfil as they evolve. As noted during the workshop, the preparation of the NWA will be an evolving process with changes and improvements to reflect experience in compiling and using the NWA.

Following the discussion the workshop agreed on the following initial or working objective for inclusion in the Roadmap for the Pilot NWA:

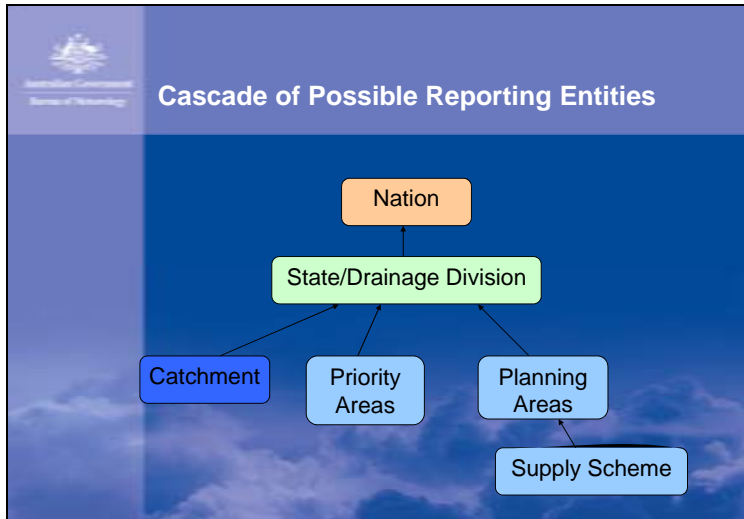
*To disclose availability, rights to use water, and actual use of water on a national and consistent basis in order to inform, inter alia:*

- *water markets;*
- *water planning (sharing) processes; and*
- *investment decisions.*

In regard to General Purpose Water Accounting Reports BoM noted that their objective was to "provide information useful to users for making and evaluating decisions about the allocation of water resources."

## 6 Reporting entities

BoM suggested a cascade of possible reporting entities, be they geographic or organisational, viz:



The entity Nation, which could include State/Territory, is clearly jurisdictional whereas Drainage Division and Catchment are geographic entities. Priority Areas, Planning Areas and Supply Schemes reflect the NWI focus on water management regimes. Supply Schemes would encompass, inter alia, supplies to irrigation, rural and urban communities, riverine ecosystems and industrial processes.

BoM noted that while coarser resolutions were the more logistically feasible, the usefulness of a report increases the finer the resolution. Some supply managers may want to go with reduced scope, depending on capacity or the partnership arrangement with BoM.

BoM's view on the pros and cons of possible reporting entities was summarised as follows:

	Legal obligations	Information needs	System adequacy	System integrity
Nation	✓	?	?	✓
State	?	?	?	✓
Priority Area	x	?	x	x
Catchment	x	?	?	?
Planning Area	✓	?	?	?
Supply scheme	x	✓	✓	x

## National Water Account Workshop

Some suggested other possible reporting entities such as water agencies, NRM regions, irrigation districts, and even electoral boundaries. It was pointed out that Victoria has groundwater management units, as is the case in some other jurisdictions, – another possible reporting entity.

It was said that Planning Areas would cover a large proportion of national area. Ensuring the reporting entities could provide groundwater information was raised as being important. The ongoing stability of reporting entities was an important consideration in making choices. Another question was whether data on water quality could be provided for each reporting entity. While water quality could eventually be incorporated in the NWAs this was considered to be 'out of scope' for the first NWA.

It was, however, generally agreed that the cascade list of reporting entities suggested by BoM was appropriate. Further discussion agreed that Planning Areas and Supply Schemes were the two key reporting entities for compiling the pilot NWA.

## 7 NWA Proposed Form and Content

A number of key questions arise when considering the form and content of NWA. BoM presented the more important ones to the workshop.

### **Water System Status:**

For any reporting unit (system):

- How did the stocks of water change?
- How much was allocated and delivered?
- How much water was traded?
- What was the consumptive/environmental split?
- How much was lost?
- How did entitlement security change?

### **Information Trustworthiness:**

For any report preparer:

- How can we be sure the information is correct and comparable to other reports?
- What uncertainties are inherent in the report?
- What contextual issues are relevant? – e.g. climate, demand, management (restrictions, allocations)

### **Water System Status and Change:**

For water resource assessment:

- How much water is available in different parts of the country today and how does it compare with history?
- How much rainfall and evaporation did we experience last year?
- Where are groundwater stocks changing and why?
- How much water did the environment get during the reporting period?
- How is water quality changing?
- How much water is being intercepted by farm dams and various land management changes?

## National Water Account Workshop

The structure of a NWA suggested by BoM and presented to the workshop contained seven parts. They are:

1. Contextual Statement
2. Statement of Changes in Water Assets and Liabilities
3. Statement of Water Assets and Liabilities
4. Statement of Physical Flows
5. Disclosure Statement
6. Accountability Statement
7. Assurance Statement

BoM said the key features of the first NWA (planned for end 2010) would be the collection and consolidation of sub-national accounts, where appropriate. Consolidation involves adding together the accounts of smaller water reporting entities and eliminating the effects of transactions between those entities so that consolidated accounts do not double-count internal transactions.

All accounts for the first NWA would be prepared to a WADC-recommended (time-limited, catch-all) standard: Preliminary Australian Water Accounting Standard No. 1 (PAWAS1), the contents of which are now being developed.

PAWAS1 will prescribe:

1. reporting entities;
2. reporting templates (model accounts);
3. guidance on contextual statement; and
4. disclosure note templates (model disclosures).

BoM explained the following working definitions for water account elements.

### **Water Assets:**

*Water or rights or other claims to water, which the reporting entity holds or has management responsibilities for and from which stakeholders derive future benefits, e.g. stores in dams or rivers if the reporting entity is a catchment; allocation if the reporting entity is a water user.*

### **Water Liabilities:**

*A present obligation of the water reporting entity, the discharge of which is expected to result in a decrease in their water assets, e.g. announced allocations if the water entity is a catchment.*

An important issue regarding NWA content is the source of data and information and, particularly, how much will be non-measured. Wherever non-measured is an issue decisions will be needed on whether measurement needs to be introduced or estimation will be used. The quality/accuracy of the information being sought will influence which of the two is required, and the methods to be used.

In turn, this raises issues concerning measurement technologies and investments, and estimation methodologies and their application. Tasmania, for example, does not have good information on use because there is limited water metering.

These matters will be addressed progressively as the NWA evolve and improve, although they are of some significance from the outset. In many instances they will involve research and development activity ahead of implementation, and these needs and priorities will emerge as preparing the NWA progresses.

These issues were only discussed briefly at the workshop and the following points were raised. Data from regulated water systems, while usually available, will vary in detail and accuracy. In many instances available data will reflect the uses for which it was collected meaning consistency of approach is not assured. For any given level of desired accuracy measurement and estimation methodologies will and should vary. They will also vary with particular physical circumstances.

The priority areas for further work and research on estimation should be those likely to come under most community and policy scrutiny. Connectivity between groundwater and surface water, and farm interceptions were two specific areas mentioned.

## 8 Report Preparation and Review

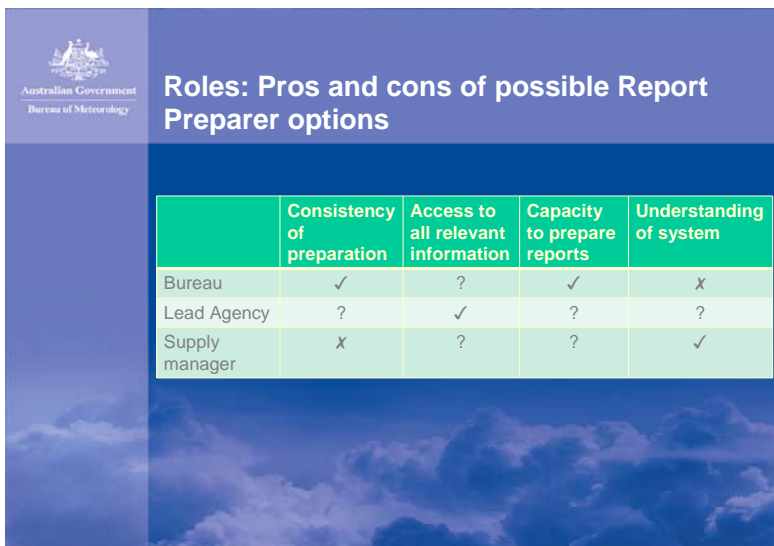
BoM presented to the workshop three possible options for the preparation and review of sub-national reports. They are set out in the following schematic.



**Roles: Sub-national report preparation and review options**

Role	Option 1	Option 2	Option 3
Set parameters	Bureau	Bureau	Bureau
Prepare reports	Supply manager	Bureau	Lead Agency
Review reports	Bureau		Bureau
Consolidate	Bureau	Bureau	Bureau
Comment	Lead Agency/NWAC	Lead Agency/NWAC	NWAC
Publish	Bureau	Bureau	Bureau

BoM offered the following view on who would be best placed regarding the skills and knowledge needed.



**Roles: Pros and cons of possible Report Preparer options**

	Consistency of preparation	Access to all relevant information	Capacity to prepare reports	Understanding of system
Bureau	✓	?	✓	✗
Lead Agency	?	✓	?	?
Supply manager	✗	?	?	✓

Discussion suggested that who was best placed to do what would vary across the country. It was suggested that in some instances lead agencies would be preferred over supply managers for most relevant tasks. Some viewed compilation of information as separate from consolidation which would influence who were best

## National Water Account Workshop

placed to do each. Achievability and efficiency were also relevant considerations when deciding who did what.

From the three options suggested by BoM, Option 2 was the postulated as the way forward. This option placed considerable work and responsibility on BoM. Consequently, participants asked who had the detailed knowledge on the primary data and the expertise on the entire system, and how those requirements would be met?

This led to agreement that the approach needed to be one of cooperative development. This notion of cooperative development was picked up later when deciding on next steps and resourcing.

Discussion of cooperation and collaboration naturally led to issues of governance being raised. This became the next topic of discussion.

## 9 Governance Arrangements

BoM had presented a suggested structure for a water account earlier in the workshop. It included disclosure, accountability and assurance statements.

Clearly governance arrangements – who accepts responsibility for what – is a significant issue. Everyone agreed that governance arrangements would need to be spelt out clearly in the Roadmap. Here, particularly, there was a need for clarity early in the process.

During earlier discussion of the ABS Australian Water Account the statutory arrangements under which ABS operates were explained. Essentially, ultimate responsibility lies with the Australian Statistician. The legislation that makes supplying BoM with information mandatory could be viewed as carrying similar accountability implications for BoM.

It was suggested, however, that not all responsibility could rest with BoM because the circumstances were considerably more complex than those faced by ABS. Furthermore, some of the information required for the NWA would be also required to meet jurisdictional legislation where governance arrangements would be set down. In formulating the arrangements it was also important to recognise the distinction between management responsibilities and (statutory) governance accountability.

## 10 Resourcing Preparation of the Pilot NWA

Presentation and discussion of BoM's legislated responsibilities, and the resources provided to fulfil its role, highlighted the fact that BoM would need to, and will, take the lead in preparing the NWA. It was also noted that, particularly because of the tight timeframe, BoM's requests for information and data for the pilot NWA would be quite prescriptive.

The task will require the jurisdictions to provide BoM with information and data, and necessary explanations and interpretation. Workshop participants indicated willingness to work collaboratively with BoM in meeting data and information requirements. Perhaps not surprisingly, all jurisdictions/agencies represented indicated this would strain existing resources and some additional resourcing would be required.

It was proposed that a Task Group be established early in 2009 to help produce the pilot NWA. Each jurisdiction was asked if it could provide an appropriate person to work full-time on the task group in 2009. All jurisdictions indicated willingness to do this, subject to help with resourcing. WA and Tasmania additionally noted that their limited staff resources would mean the availability of an appropriate person would need to be discussed further with BoM. It was also noted that NT would likely have similar capacity constraints.

## Attachment 1: Workshop Participants

Greg Long	DNRW, QLD
Paul Pendlebury	DWE, NSW
Phil Moss	DWE, NSW
Roslynn McRoberts	DSE, VIC
Trish Williams	DWLBC, SA
Glenn Nordsvan	DoW, WA
Bryce Graham	DPIW, Tas
Christina Jackson	DPIW, Tas
Graham Begg	Sydney Catchment Authority
Chris Biesaga	MDBC
Claude Piccinin	WSAA
Albert van Dijk	CSIRO
Gemma Van Halderen	ABS
Dianne Bourke	ABS
Helen Foard	DEWHA
Karl Higgins	DEWHA
Craig McVeigh	NWC
Denis Flett	SKM, WADCO
Volker Aeuckens	WADCO
Jayne Godfrey	WADC, Monash University
Tom Vanderbyl	WADC, Sunwater
David Barratt	BoM
David Nicholls	BoM
Rob Vertessy	BoM
Louise Minty	BoM
Grace Mitchell	BoM
Rob Argent	BoM

Attachment 2: Workshop presentations

National Water Accounting Development Project: Volker Aeuckens, WADCO

Slide 1

*National Water Accounting  
Development project*

9 December 2008

Slide 2

**The NWI Water Accounting  
Framework**

- Comprising the elements of (NWI para 80):
  - measurement of the resource;
  - monitoring of water plans and their performance; and
  - provision of public reporting systems.
- Delivered through (81):
  - state based water entitlement register systems;
  - water service provider water accounting systems; and
  - jurisdictional, or system based water and related data bases.
- Actions required include (82):
  - accounting system standards and standard reporting formats for comparison and checking compliance against entitlements and trading information (the National Water Accounting Development project); and
  - water resource accounts that can be reconciled annually and aggregated to produce a national water balance (the National Water Account).

Slide 3

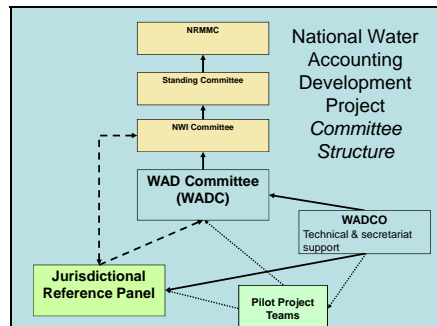
**National Water Accounting  
Development project**

Established to:

Develop water accounting, coordinate standards development, and assist jurisdictions with systems development where necessary

- Endorsed by NRMCC 24 November 2006
- Funded by Raising National Water Standards
- \$5m + expectation of \$5m in kind from states
- 3 yrs to Feb 2010

Slide 4



# National Water Account Workshop

Slide 5



Slide 6

### Progress to date

**User Information Requirements**

- Completed April 2008
  - Outcomes used to further develop General Purpose Water Reports

Slide 7

### Progress to date

**Water Accounting Conceptual Framework**

- Nearing completion
  - All black letter concepts final by end 2008
- Involves 8 Statements of Water Accounting Concepts
- Tested through pilot projects, stakeholders and focus groups
- Will allow drafting of standards

Slide 8

### Progress to date

**Standards setting process and drafting**

- Process established and agreed 9 standards to be drafted
  - to commence January 2009
- Sufficiently advanced by April 2009 to allow preparation of 1<sup>st</sup> National Water Account
- Expect to run at "Exposure Draft" level for some time
- Strong Water Accounting Conceptual Framework has provides the underpinning

Slide 9

**Progress to date**

**Pilot Project Program**

- 6 pilot projects established in NSW, Vic, WA, Qld, SA and the MDB
- Used to test concepts and develop demonstration GPAWR
- Will continue to be used to test standards as drafted and NWA reporting

Slide 10

**Progress to date**

**Capacity Building and Communications**

- Through pilot projects
- Meetings with AASB and recently with FRC
- Communicated through industry forums
- Established general information website
- Greater role for Bureau of Meteorology in this area

Slide 11

**Progress to date**

**Regulatory Framework**

- Proposals developed for future institutional arrangements
- Subject to future arrangements under the Bureau of Meteorology

Slide 12

**Key Future Work Areas**

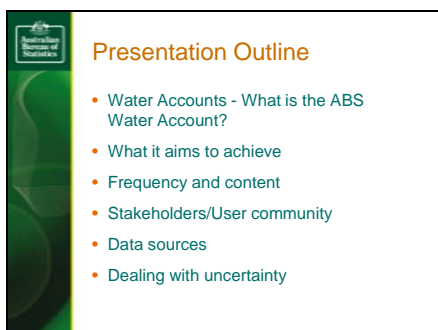
- Finalise Australian Water Accounting Conceptual Framework
- Drafting of Standards
  - Preliminary AWAS for use with National Water Account – testing by Pilots April 09
- Ongoing work with Pilot Projects
  - Testing of standards, demonstration accounts

### Water Account – Australia: Gemma Van Halderen, Australian Bureau of Statistics

Slide 1



Slide 2



Slide 3

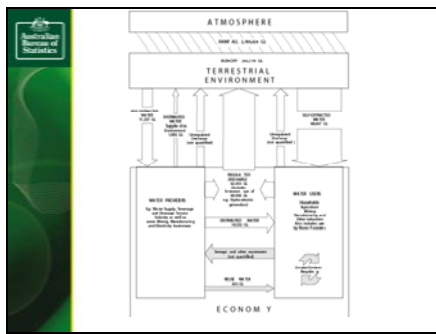


Slide 4



# National Water Account Workshop

Slide 5



Slide 6

### Frequency

- Four yearly:
  - 1993-04 to 1996-97
  - 2000-01
  - 2004-05
  - 2008-09 (from Dec 2010)
- An evolving and improved process each time

Slide 7

### Stakeholders/User community

- Federal Govt
  - DEWHA, DRET, DAFF, PMC, etc
  - NWC – eg AWR 2005
  - Geoscience Australia
  - BRS
- BoM
- State governments
- Water Supply Industry
- Industry associations
- Researchers
- Other data providers

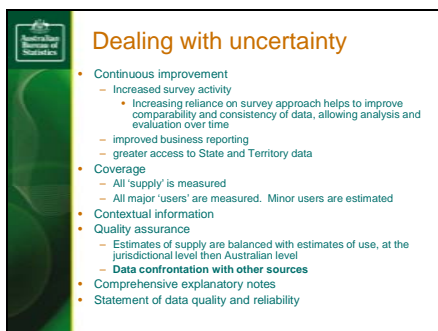
Slide 8

### Data sources

- Supply
  - ABS - Water Supply Survey
  - WSAA
  - BoM
- Use
  - Water Use surveys – Agriculture, electricity generators, mining, manufacturing, other industries, households
- Contextual
  - BRS, CSIRO, BoM
- Standards
  - SEEA
  - Australian Standard Geographic Classification
  - Aust/NZ Standard Industry Classification
  - ? Drainage Divisions, River Basins, SWMA, GWMA, Irrigation Divn

## National Water Account Workshop

Slide 9



**Dealing with uncertainty**

- Continuous improvement
  - Increased survey activity
    - Increasing reliance on survey approach helps to improve comparability and consistency of data, allowing analysis and evaluation over time
  - improved business reporting
  - greater access to State and Territory data
- Coverage
  - All 'supply' is measured
  - All major 'users' are measured. Minor users are estimated
- Contextual information
- Quality assurance
  - Estimates of supply are balanced with estimates of use, at the jurisdictional level then Australian level
  - **Data confrontation with other sources**
- Comprehensive explanatory notes
- Statement of data quality and reliability

Slide  
10



**Contact Details**

Gemma Van Halderen  
Assistant Statistician  
Environment and Agriculture Branch

For Statistical inquiries:  
Dianne Bourke  
dianne.bourke@abs.gov.au

### Water Regulations: David Nicholls, Bureau of Meteorology

This presentation used website links to:

- illustrate the detail of the Water Regulations (<http://www.frli.gov.au/comlaw/legislation/legislativeinstrumentcompilation1.nsf/frameLodgmentAttachments/E653F0D01CFDC11CA25751400099122>);
- categories of water information and what each category will cover (<http://www.bom.gov.au/water/regulations/category-of-water-information.shtml>); and
- similarly, sub-categories of water information (<http://www.bom.gov.au/water/regulations/subcategory-of-water-information.shtml>)

### Pioneer Valley Pilot: Greg Long, Queensland DNRW

Details of this project are in a report of the project supplied to participants in their workshop folder.

A publicly summary of the Pioneer Valley pilot water account can be found in following report (refer to Pioneer Valley Water Resource Plan Section 14.7 for the Pioneer Valley Water Account 2007-2008):

[http://www.nrw.qld.gov.au/wrp/pdf/annual%20reports/wrp\\_annual\\_report\\_07\\_08\\_4.pdf](http://www.nrw.qld.gov.au/wrp/pdf/annual%20reports/wrp_annual_report_07_08_4.pdf)

**End of document**



**Water Information**  
DATA › INFORMATION › INSIGHT

Through the *Water Act 2007*, the Australian Government has given the Bureau of Meteorology responsibility for compiling and delivering comprehensive water information across Australia.

**For more information**

Visit our website at [www.bom.gov.au/water](http://www.bom.gov.au/water)

Send an email request to [waterinfo@bom.gov.au](mailto:waterinfo@bom.gov.au)



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