

Environment & Energy News

Environment and Energy News, the newsletter of the ABS Centre of Environment and Energy Statistics (CEES), is published twice a year highlighting developments in environment and energy statistics particularly at the ABS.

Experimental Monetary Water Account

Agriculture used 64% of total distributed water in 2004-05, and contributed 8% of total payments for distributed water in 2003-04. Households, in comparison, used 23% of total distributed water and paid 59%.

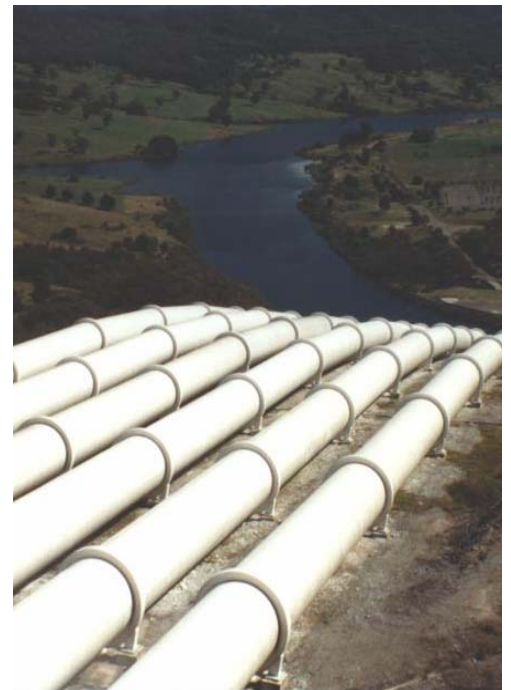
These were among the findings of an ABS Research Paper on an experimental monetary water account, released in February this year. The Research Paper presented experimental monetary water accounts that allow some of the physical flows of water to be matched with monetary transactions. Physical water accounts were produced by the ABS in *Water Account, Australia* (ABS cat. no. 4610.0), most recently for 2004-05.

The Research Paper linked physical data in the *Water Account* to economic data on the supply and use of distributed water. Linking monetary and physical water accounting data can be useful for determining efficient water allocation, achieving cost recovery for water infrastructure assets and analysing trade-offs between alternative water and economic policies. The Research Paper does not include estimates of the value of self-extracted water or the value of the stock of water. However, these areas are considered important and are being considered by the ABS.

Key findings of the paper include:

- total value of distributed water supply in Australia in 2003-04 was \$3,466 million
- households paid \$2,047 million (59%) in 2003-04, and in 2004-05 households used 23 per cent of total distributed water
- agriculture used 64 per cent of total distributed water in 2004-05, and contributed 8 per cent of total payments for distributed water in 2003-04
- in 2003-04 Victorian households had the lowest expenditure on distributed water per household (\$205) and the Northern Territory the highest (\$507).

For more information, see: *Research Paper: An Experimental Monetary Water Account for Australia, 2003-04* (ABS cat. no. 4610.0.55.004), or contact Peter Comisari: peter.comisari@abs.gov.au, (02) 6252 5381.



Contents

Water News	2
Environmental accounting training course	3
Alternative energy industry view	3
People's views & practices	4
NSW in Focus	5
Energy hungry homes in NSW	5
Expected releases	6
Contact us	6

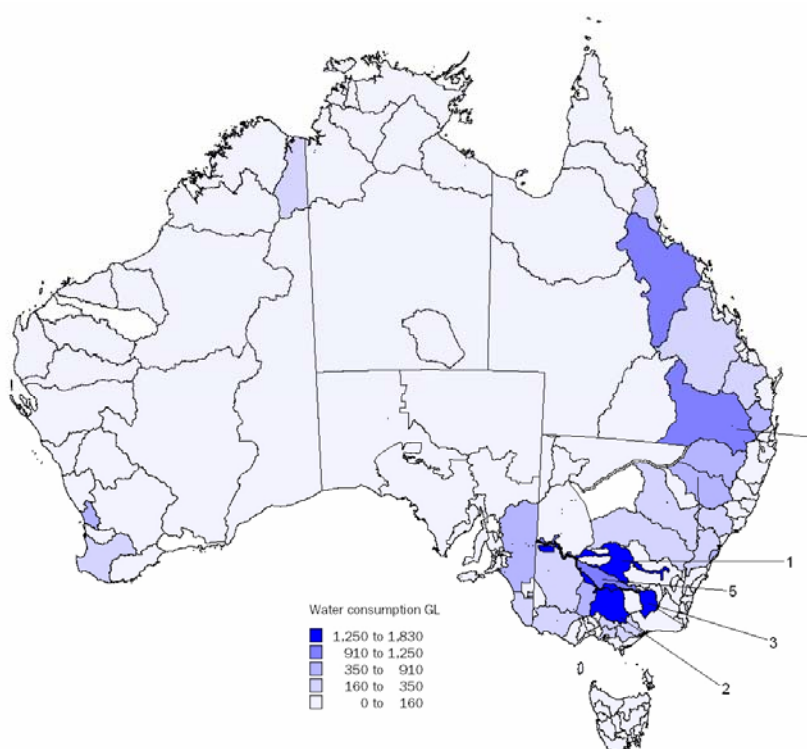
Water News

Experimental estimates of regional water use for Australia

Of a total of 167 Water Management Areas (WMAs), the top 20 accounted for 70% of Australia's total water consumption, according to a regional breakdown of data from the ABS' *Water Account, Australia, 2004-05* (ABS cat. no. 4610.0). Furthermore, the top 30 Water Management Areas consumed 81%.

The following map and table display the results of regional water consumption data, which was published in December 2006 and utilised by the Australian Water Resources 2005 project (AWR 2005).

The ABS publication *Experimental Estimates of Regional Water Use, Australia, 2004-05* (cat. no. 4610.0.55.002) presents total water consumption for 167 WMAs, including an analysis of water consumption for each one, by different sectors of the economy (agriculture, mining, households).



	WMA Name	State	Water Consumption (Megalitres)	Breakdown of Water Consumption (%)				
				Ag	Other	Households	Mining	Manufacturing
1	Murrumbidgee River - Regulated	NSW	1,820,084	84	16	Remainder		
2	Broken River, Goulburn River, Campaspe River	VIC	1,361,895	67	31	2	Remainder	
3	River Murray	VIC	1,252,662	96	3	Remainder		
4	Border Rivers, Condamine Balonne, Moonie	QLD	1,122,359	89	8	2	Remainder	
5	Murray - Regulated	NSW	1,047,441	80	19	Remainder		1

Water Statistics User Group

More frequent national Water Accounts was a hot topic for discussion at the Water Statistics User Group Meeting held in February this year.

Held at the Australian Bureau of Statistics Central Office in Canberra, the purpose of this annual meeting is for the ABS to seek user input into its water statistics program and to receive feedback on statistical priorities – the outcomes help to refine the ABS's water statistics program.

The ABS currently produces a national Water Account every four years. The next Water Account (for 2008-09) is due for release in 2011. However, the ABS was advised by the Water User Group that the water-related issues currently facing Australia have led to a requirement for ABS Water Accounts at more regular intervals. For example, a 2006-07 Water Account would have been beneficial to assess the impact of the severe drought. Options for the scale and frequency of future water accounts were also discussed.

Work in progress

Environmental Accounting Training Course

If you have ever wanted to know more about environmental accounting and how it is useful, the ABS is developing a new course to meet this need.

The ABS one-day training course, "Understanding Environmental Accounting", would be of interest to those new to environment and natural resource statistics and/or working in the field of environmental accounting; national accountants; or anyone requiring an overview of environmental accounts and their use.

Developed by CEES' Improved Environmental Reporting team, the course aims to help participants to:

- understand the frameworks that underpin environmental accounting

- distinguish the various types of environmental accounts and what they measure
- understand the relative benefits of environmental accounting
- develop a basic understanding of the ABS experience in compiling environmental accounts
- understand the types of uses and applications of environmental accounts.

The pilot of the course was held in June, with a view to present the course to both ABS and non-ABS staff later in the year.

For more information, contact Sarah Coleman, (02) 6252 7715 or email sarah.coleman@abs.gov.au

Energy Supply: An Alternative Industry View

A new CEES Research Paper will allow for better analysis of, and comparisons between, Australia's electricity and gas suppliers.

The Research Paper being developed by the CEES Energy team will provide a more accurate reflection of the energy supply industry, taking account of the recent trend of diversification in the industry whereby businesses currently classified only as electricity suppliers are also significant gas suppliers. Expected for release in September 2007, it investigates a methodology for producing an alternative industry view of energy supply in Australia. This work addresses user concerns about current statistics on the electricity and gas supply industries in light of recent energy market reforms and industrial restructuring.

Currently, the ABS publication *Electricity, Gas, Water and Sewerage Operations, Australia (ABS cat. no. 8226.0)* produces industry based statistics for national accounting purposes. It uses the Australia and New Zealand Standard Industrial Classification (ANZSIC), where business units are classified to a single industry, irrespective of any diversity of activities undertaken. The alternative industry view used for the Research Paper involves the development of statistical frameworks that enable measurement of economic activity for industries that cut across or involve a combination of industry classes.

The Research Paper investigates an "energy supply" industry which is defined to include the complete industry supply chain; that is, the generation / production, transmission, distribution and retailing activities, for both the electricity and gas supply industries.

This alternative view also reallocates secondary electricity or gas supply activities to their appropriate industry to allow classification of businesses to electricity supply where they also undertake significant gas supply activities (and vice versa).

For further information about this research paper, contact Julie McKenzie: (02) 6252 5864 or email julie.mckenzie@abs.gov.au



Work in progress cont'd

Water Program

The water statistics program for 2007 involves the production of several publications as well as continuing to develop options for how to improve and expand water statistics.

The CEES Water team has assessed the "Evaluation, Development and Implementation of National Water Accounts" as its key project for 2007. The project involves evaluating the methods used and the issues encountered with producing the *Water Account, Australia, 2004-05 (ABS cat. no. 4610.0)*. It also looks at strategies for the production of more frequent Water Accounts (e.g. annual or biennial), which involves reviewing data from ABS collections, administrative sources and evaluating options for different data collection/data availability scenarios.

Water Use on Australian Farms, 2005-06 (ABS cat. no. 4618.0) will be released in August. It continues the

series describing water use by agriculture, including irrigation of crops and pastures and other water use. More detailed water questions will be included in the 2006-07 Agricultural survey, such as irrigation methods, changes to irrigation practices and irrigation expenditure, to be published in 2008.

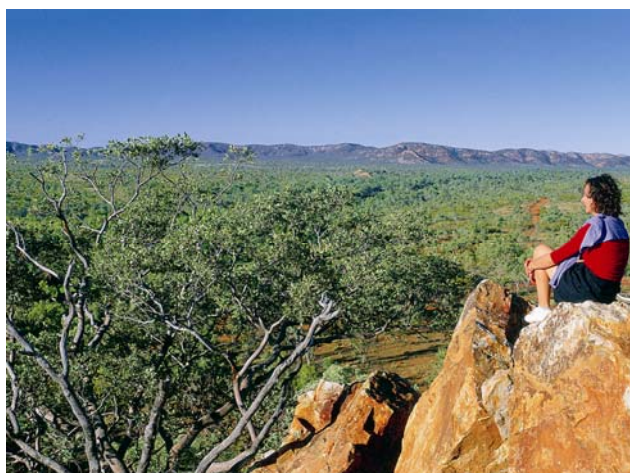
Regional level water statistics will involve an analysis of the 2005-06 Agricultural Census water use data to investigate the possibilities for improved regional data to inform policy and decision-making, in response to requests from the Water Statistics User Group meeting this year.

CEES' Water team will continue to work closely with key stakeholders including the Bureau of Meteorology, the National Water Commission and the Department of the Environment and Water Resources and the Water Accounting Development Committee.

Did you know?

In 2005, two-thirds of Australia's population lived in the major cities. This means that most Australians live in coastal areas. The concentration of people in coastal areas of south-eastern Australia has resulted in relatively high rates of land clearing or native bushland and agricultural land for residential development.

Further details are available in *Australia's Environment: Issues and Trends 2007 (ABS cat. no. 4613.0)*. Contact Robyn Elphinstone: robyn.elphinstone@abs.gov.au



Environmental Issues: People's Views and Practices

Household's water use and conservation practices, including grey water and water tank use will feature in this year's edition of *Environmental Issues: People's Views and Practices (ABS cat. no. 4602.0)*.

Released in November, the publication provides data on environmental behaviour and practices of Australian households for the three main themes of water, energy and waste, focusing on a different theme each year. Next year's topic is energy use and conservation.

ABS has released 12 editions of this publication since 1992. Topics are rotated as follows:

- Energy use and conservation (1994, 1999, 2002, 2005, 2008).
- Waste management and transport use (1992, 1996, 2000, 2003, 2006).

- Water use and conservation (1994, 1998, 2001, 2004, 2007).

A new attitudinal survey will cover topics on:

- concerns about the environment
- reasons for increases or decreases in personal energy and water consumption
- whether environmental considerations are taken into account when purchasing household appliances.

The survey results will be published in late 2008.

For further information on the environmental household surveys, please contact Nick Thompson nick.thompson@abs.gov.au or Kate Maguire kate.maguire@abs.gov.au or phone (02) 6252 7735.

Recent releases

NSW in Focus

NSW in Focus (ABS cat. no. 1338.1), released on 17 May, provides a contemporary record of activity within the state, presenting an array of useful and interesting statistics from both ABS and non-ABS sources.



The materials presented in this publication are organised into twelve chapters representing areas of social or economic importance: population, family and community, health, education and training, work, economic resources, housing, crime and justice, transport, economic activity, and the environment. At the beginning of each chapter a summary table presents a time series of key indicators, followed by more detailed statistics relating to issues identified within each topic.

The 2007 edition includes a chapter on work which provides an expanded analysis of labour force status,

underutilisation, job mobility, skilled employment, and information about people not in the labour force. In addition, selected national and international indicators, covering a range of topics, have been included for comparative purposes.

NSW in Focus is produced annually and is available free of charge from the ABS web site.

For further information contact Allan McLean on (02) 9268 4795, email client.services@abs.gov.au

Energy hungry homes in NSW

Although nearly three-quarters (71%) of NSW households use cold water for washing machine loads, nearly one-third (29%) of households with an electric clothes dryer used it once per week.

These were just some of the findings from the *New South Wales State Supplementary Survey, Domestic Water and Energy Use, New South Wales, Oct 2006* (ABS cat. no. 4621.1). Released on 10 May 2007, the publication presents information on selected water and energy consuming appliances including types of heating and cooling used in the household, energy source for hot water systems, domestic indoor water use, clothes drying habits and swimming pool ownership and maintenance.

Selected findings for New South Wales include:

- An estimated 27% of households used reverse cycle air conditioning as the main type of heating, 25% used other types of electric heating and 23% used gas heating.
- Wood heating was used by 11% of households as the main type of heating, with the greater proportion of those being outside Sydney in the Balance of NSW (which means the rest of the state other than Sydney).
- Over 30% of households used a fan as their main type of home cooling, 21% used split system air-conditioning, 17% used portable or set in the wall air-conditioners, and 12% of households used ducted air-conditioning.

The most common energy type for hot water systems in households was off-peak electricity (44% of households), 26% used mains gas and only 3% used solar energy.

- The majority (57%) of households have only one shower, and an estimated 9% of households had 3 or more showers.
- Approximately 79% of households used top loading washing machines and 2% used twin tub machines. Water efficient front loaders were used by 14% of households.
- Cold water is used for 71% of washing machine loads done by NSW households. Warm water accounts for 17% of washing loads, while about 2% of washing loads are done in hot water.
- An estimated 29% of households with an electric clothes dryer used it once per week, 37% used it less than once per month and 14% never used it.
- 78% of households used a private outdoor clothes drying line and 64% had access to a clothes airer.
- 14% of households had a swimming pool and/or a spa.

Data is disaggregated by Sydney and "Balance of NSW", number of bedrooms in the household and type of dwelling. Similar information is available for South Australia and Western Australia in *Domestic Use of Water and Energy, South Australia, Oct 2004* (ABS cat. no. 4618.4) and *Domestic Use of Water and Energy, Western Australia, Oct 2006* (ABS cat. no. 4652.5).

For further information contact the National Information and Referral Service on 1300 135 070, email client.services@abs.gov.au

Year Book Australia 2007

Year Book Australia (ABS cat. no. 1301.0) provides a comprehensive and detailed statistical overview of various aspects of our great nation. This magnificent volume contains 30 chapters dealing with Australia's geography and climate, environment, energy use and production, government, international relations, defence, education and many more.



The 2007 *Year Book Australia* celebrates 100 years continuous service to the nation by Australian volunteer lifesavers. There is also a feature article to mark the International Polar Year established by the International Council for Science and the World Meteorological Organisation.

Copies of this limited edition Australian Bureau of Statistics flagship publication cost \$97.00. Orders can be made using your credit card on the ABS website or by contacting the National Information Referral Service on 1300 135 070.

CEES Advisory Board and User Group Meetings

Developing environmental accounts and integrating environmental data were key topics for discussion at the CEES Board meeting on 12 March this year.

Two key aspects of the ABS' environment program include improving environmental statistics through working with other organisations and developing environmental accounts to inform debate on the economics constraints of environmental resources.

ABS is already working with other organisations to

improve environmental statistics through increased coordination for standards and classifications and the role of statistical rigour in a highly variable environment.

At present, key areas of the CEES work program include the 2006-07 Natural Resource Management Survey, exploring increasing the frequency of the *ABS Water Account*, the environmental household survey and developing options for how to improve and expand ABS' contribution to energy and GHG statistics.

Expected release dates for 2007

July	Research Paper: An Experimental Monetary Water Account for Australia, 2003-04 (ABS cat. no. 4610.0.55.004)
Aug	Water Use on Australian Farms – Preliminary (ABS cat. no. 4618.0)
Nov	Environmental Issues: People's Views and Practices (ABS cat. no. 4602.0)
Dec	Australia's Environment: Issues and Trends 2006 (ABS cat. no. 4613.0)
Dec	Water Use on Australian Farms – Final (ABS cat. no. 4618.0)

Contact us

Environment and Energy News features articles and developments in relation to work done within the ABS Environment and Energy program.

- For more information on land and water, please contact Adam Sincock, (02) 6252 5436 or email adam.sincock@abs.gov.au
- For more information on energy or environmental household statistics, please contact Robyn Elphinstone, (02) 6252 5502 or email robyn.elphinstone@abs.gov.au
- If you would like to be placed on our free electronic mailing list, please contact Kay Barney and leave your address details, (02) 6252 6766 or email k.barney@abs.gov.au

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