

EXPLANATORY STATEMENT

Select Legislative Instrument 2008 No. 106

Issued by the Authority of the Minister for Climate Change and Water

Water Act 2007

Water Regulations 2008

The provisions of the *Water Act 2007* (the Act) which commenced on 3 March 2008 provide for the coordinated management of the water resources of the Murray-Darling Basin.

Subsection 256(1) of the Act provides that the Governor-General may make Regulations prescribing matters required or permitted by the Act to be prescribed, or necessary or convenient to be prescribed, for carrying out or giving effect to the Act.

The Regulations:

- exclude certain ground waters in South Australia from the definition of Murray-Darling Basin water resources.
- require that specified water information collected across Australia be given to the Bureau of Meteorology (Bureau) to enable it to undertake its functions under the Act; and
- prescribe the form of the identity card to be carried by authorised officers under the Act.

Section 4 of the Act defines *Basin water resources* to mean all water resources within, or beneath, the Murray-Darling Basin, other than:

- (a) water resources that are prescribed by the Regulations for the purposes of paragraph (a) of the definition; or
- (b) ground water that forms part of the Great Artesian Basin.

The Regulations prescribe ground waters of the South Australian Tintinara Coonapllyn Prescribed Wells Area for the purposes of paragraph (a) of the definition of *Basin water resources*. This has the effect of excluding ground waters in the Prescribed Wells Area from the definition of Basin water resources.

Only a small portion of the prescribed wells area is located within the Murray-Darling Basin and the Regulations allow all ground water within the area to be managed consistently under South Australian laws.

Section 126 of the Act provides for the making of Regulations, specifying persons or classes of persons who must give to the Bureau specified water information that is in their possession, custody or control, within a specified time and in the form and manner specified.

The Regulations require that specified water information collected across Australia be given to the Bureau to enable it to undertake its expanded functions under the Act. These include the management, interpretation and dissemination of Australia's water information, reporting regularly on the status of Australia's water resources, predicting future water availability and the publication of an annual water account. This information and the derived analyses and reports will be published

freely on-line and should assist water managers, policy makers and the community to understand and more sustainably use Australia's water resources.

In many key areas of Australia, including the Murray Darling Basin, water resources are under severe pressure and are not being sustainably managed. Under the Intergovernmental Agreement on a National Water Initiative (NWI) all Australian governments have agreed to establish clear pathways to return all water systems to sustainable levels of extraction. In order to determine the status of the resource, set appropriate benchmarks and evaluate progress, up to date information on the status of our water resources is needed. To date this information has not been available in a coherent and comprehensive fashion.

Water information in Australia is currently collected across hundreds of agencies, both public and private. Co-ordination and standardisation of this water information is poor or absent within governments, between jurisdictions and across industries. This lack of co-ordination, combined with diminishing investments in the sector has led to gross inefficiencies in the way that information is managed and significantly reduced the potential return on the major investments in water information in Australia.

Community access to water information is highly variable and major stakeholders are hampered by out of date, variable and often contradictory reporting of water resource and water rights information. Poor access to and lack of confidence in water information leads to uncertainty for the banking industry and water users with regard to the collateral and mortgage value of water access entitlements. Among research providers, the difficulty of access to water information increases costs and leads to a large amount of duplication of effort, with major costs being transferred on to governments and other research purchasers. In the water industry itself, policy makers and water managers are not being provided with the timely information and analysis of water availability trends that they need to assist decision making.

Climate change analysis and population growth projections indicate that the pressure on water resources in Australia will substantially increase over the coming decades, as inflows decline and demand increases. These trends highlight the need for better management and monitoring of an increasingly valuable and scarce resource. The water information given under these Regulations will enable the Bureau to provide nationally co-ordinated information to the public to inform communities and support better planning, management and dispute resolution in the water industry now and into the future.

In order to analyse and provide information products fit for these purposes, in a rapidly changing set of supply and demand circumstances, the Bureau needs to acquire a broad range of data and information. Water monitoring data such as stream flows, water storage levels and dam releases will assist in building a picture of water use. More detailed information is however required to enable, inform and co-ordinate future water management.

Groundwater use and groundwater level information coupled with surface water information will enable the better characterisation of connectivity between surface and groundwater systems and support the development of integrated and sustainable levels of water abstraction. Information on the location, use, management and capacity of major dams is required to build a picture of water interception as a significant component in the national water balance. Weather station data is vital to enable the Bureau to better estimate catchment inflows, evaporative losses and stream flows. Information on urban water use and restrictions is a critical component of the national water balance and will inform urban communities as well as contributing to assessments of regional growth capacity.

Under paragraph 59 of the NWI, all governments have committed to develop compatible registers of water access entitlements and trades as a key to increasing transparency and accountability and to achieving efficient water markets. The Bureau also needs this information to populate the National Water Account and in the Regulations, where such information is required to be given.

Using its existing climate, weather and flood warning information capacity, coupled with the information given through these Regulations, the Bureau will collect and maintain a comprehensive set of information on Australia's water resources. This information will be up to date and freely available to the public on-line. It will be analysed and presented to be fit for purpose for a wide range of users. The Bureau will endeavour, as far as possible, to avoid any restriction on third party users, including for commercial purposes.

The Bureau is undertaking an analysis of user needs across the water sector to inform the design of the Australian Water Resources Information System; a web interface that will manage, analyse and present national water information in a range of formats to meet diverse user needs. This system will include a number of toolboxes dedicated to specific aspects such as water quality, water availability and water accounting. These on-line tools will also include a capacity for agencies and individuals to generate a range of reports as required for regulatory, research and management purposes. The integration of water information across catchments and across the nation and its presentation in compatible formats will assist in addressing the many inadequacies associated with the current administration and management of shared water resources that cross jurisdictional boundaries.

These Regulations individually name over 260 persons who are required to give to the Bureau a range of information attributes. Details of the persons and the types of information are also available on the Bureau's website <http://www.bom.gov.au/water>, as are further contact details for persons requiring assistance to interpret how the Regulations may affect them.

The Act makes provision for Regulations to require persons to give specified information that is in their possession, custody or control. These Regulations only require persons to give information that is in an electronic format and in almost all cases only if it is in their data management system. There is no requirement on persons, through these Regulations, to commence collecting new types of water information or to reformat their existing paper based information into an electronic format.

Persons are not required to give specified water information if it is on the Bureau's website or if they reasonably believe that it is already in the Bureau's possession and they have informed the Bureau in writing of their decision not to provide it.

Water information that has been updated is new information and must be given again. Where the Regulations require that all observations be given, each observation made at a data collection site at different time, must be given along with the time of the observation, even if those sequential observation record a similar result, e.g. no change in water level,

The Regulations in most cases require both stored information and new information to be given to the Bureau. The time between the commencement of the Regulations and when a person must first give specified information is called the *Interim Period*. The length of the *Interim Period* may be three, six, nine or twelve months. The timeframe for the ongoing giving of new information is also specified and may be hourly, daily, weekly, monthly or annually.

By the end of the *Interim Period*, persons are required to commence giving new information at the timeframe described. Within two weeks of the end of the *Interim Period*, they are also required to give a copy of all of the specified stored information that they hold on their data management

systems. This stored information may be given on CD, DVD or an external hard drive. That continuing information may be given using a file transfer protocol or web services.

The Bureau will directly contact and work with each person named in the Regulations to assist them, as necessary, to set up systems to give data. The Bureau has already developed similar data transfer arrangements with data collectors across Australia to support the National Flood Warning Network. The Bureau is also administering an Australian Government fund of \$80 million over 5 years to assist major information managers to modernise and extend their water information collection and transfer systems.

Section 218 of the Act provides that the Murray-Darling Basin Authority (the Authority) must issue an identity card to an authorised officer in the form specified in the Regulations.

The Regulations would also prescribe the form of the identity card to be carried by authorised officers under section 218 of the Act. Authorised officers are granted a range of powers under Division 2 of Part 10 of the Act including the power to enter premises to monitor Basin water resources and compliance with the Basin Plan.

Details of the Regulations are set out in Appendix A.

Appendix B is a description of the Communication and Consultation activities undertaken by the Bureau in developing the drafting instructions for the Regulations.

The Office of Best Practice Regulation advised that as part of the process of estimating the impact of the regulations made pursuant to section 126 of the Act, a Business Cost Calculator Report was required. This report is at Appendix C.

The Regulations are a legislative instrument for the purposes of the *Legislative Instruments Act 2003*.

These Regulations commenced the first Monday after they were registered on the Federal Register of Legislative Instruments.

Appendix A

Water Regulations 2008

The details of the Regulations are:

Part 1 - Preliminary

Regulation 1.01 – Name of Regulations

This regulation provides that the title of the Regulations is the *Water Regulations 2008*.

Regulation 1.02 – Commencement

This regulation provides that the Regulations commence on the first Monday after they are registered.

Regulation 1.03 – Definitions

This regulation provides definitions for the purposes of the Regulations, including the following:

- the term *data management system* means the electronic system used by a person to manage, store and provide access to files.
- the term *Act* means the *Water Act 2007*; and
- the term *electronic format* means a format that is machine readable, but does not include scanned documents.

Regulation 1.04 – Interpretation

This regulation provides the meaning of references to time periods in the Regulations.

Regulation 1.05 – Definition of *Basin water resources* in subsection 4(1) of the Act – prescribed water resources

This regulation, together with Schedule 1, prescribes the ground waters of the South Australian Tintinara Coonalpyn Prescribed Wells Area for the purposes of paragraph (a) of the definition of *Basin water resources* in section 4 of the Act.

Only a small portion of the prescribed wells area is located in the Murray-Darling Basin. The regulation allows the ground waters in the South Australian Tintinara Coonalpyn Prescribed Wells Area to be excluded from the Basin so they can be managed under a single water allocation plan.

Part 7 – Water Information

Division 7.1-Purposes of Part

This Division states that Part 7 is made for the purposes of section 126 of the Act.

Division 7.2 - Persons and classes of persons

This Division specifies the eight categories of persons required to give water information to the Bureau of Meteorology under the Regulations. Schedule 2 lists the persons named in the Regulations in eight separate categories, (labelled A – H). The requirement on a person to give specified water information is dependent on their category. Some persons are included in more than one category.

Division 7.3 Categories and sub-categories of water information

This Division lists the ten categories (labelled 1 – 10) and sub-categories of water information that are required to be given. Tables in regulations 7.13 and 7.14 specify the sub-categories of information that each category of persons is required to give. Detailed descriptions of the sub-categories of information and related definitions are found in Schedule 3, Sub-categories of Information. This Division 7.3 also details information that is not required to be given.

Information that is not required to be given

Information that is not in electronic form is not required to be given and the Regulations do not impose any requirement on persons to reformat information that is not in an electronic form.

Persons are not required to give specified water information if it is already publicly available on the Bureau's website or if they reasonably believe that it is already in the Bureau's possession and they have informed the Bureau in writing of their decision not to provide the information for this reason.

Persons in categories C, D, E, F, G or H who have water information collected as part of a project expected to be of no more than 12 months duration are not required to give that information to the Bureau.

Water information in the possession, custody or control of a person named in the Regulations that was collected solely to fulfil a contractual arrangement with another person not named in the regulations, need not be given. This exemption does not apply to information that is collected as part of the regulatory role of a person named in the Regulations.

Division 7.4 Water information to be given to the Bureau

Regulation 7.12 Meaning of *interim period* and *grace period*

(1) This sub-regulation defines the interval between commencement of the Regulations and the time by which a category of persons is first required to give information as the *interim period*. Subject to the category in which they are grouped, persons are required to give to the Bureau a copy of the specified information that is in their data management system within three, six, nine or twelve months of the commencement of the Regulations.

For example a category of persons may be required to initially give specific information within three months, further information at six months and so on. In this example, the *interim period* for that category of persons for the initial information would be three months and the *interim period* for that category of persons for the further information would be six months.

- (2) This sub-regulation defines the term *grace period* which applies only to a person who is not specified in a category of persons at the commencement of these Regulations, but who is subsequently so specified. The *grace period* begins on the day the person is specified and ends three calendar months after that day. After the *grace period* the person is required to meet all the requirements that apply as of the end of the *interim period* for the category of persons in which they are specified.

Regulation 7.13 Water information held on commencement or during interim period or grace period

This regulation is concerned with the giving of information stored in a person's data management system prior to the end of the *interim period* or prior to the end of the *grace period*. It includes in a table the sub-categories of water information that each category of persons must give and the timeframe in which they must give it: i.e. the *interim period* (see sub-regulation 7.12 (1)) that applies for that specific information for that category of person.

All specified water information that is stored in a person's data management system must be given within fourteen days of the last day of the *interim period*. Persons, to whom the *grace period* applies (see sub-regulation 7.12 (2)), are required to give all specified water information that is stored in their data management system within fourteen days of the last day of the *grace period*.

Notwithstanding this, specified information from commercially sensitive sites listed in Schedule 4 need only be supplied by Category C persons within two calendar months of the end of the *interim period* and expressed as mean daily values.

Water information that has been given under this regulation or under regulation 7.14 but subsequently is changed or amended in any way is considered to be new information and as such must be given again.

A copy of all reference information (Category 10 Information) that relates to the water information being given under this regulation or under regulation 7.14 must always be given, unless the person reasonably believes that it is already in the Bureau's possession.

Regulation 7.14 Continuing obligation to give water information

This regulation details the continuing obligation to give new and updated information separate from the giving of stored information under regulation 7.13. A table is included that details the continuing timeframe, i.e. hourly, daily, weekly, monthly or annually, in which specified information must be given by specified categories of persons. Information on water restrictions must be given at the same time as announcements of those restrictions are made.

Persons are required to begin giving specified information under this regulation by the end of the *interim period*.

Notwithstanding this, specified information from sites listed in Schedule 4 need only be supplied by Category C persons within two calendar months of the end of the *interim period* and expressed as mean daily values.

Regulation 7.15 When information is to be given to the Bureau

This regulation details the time within which categories of persons must give water information to the Bureau, where the timeframe is denoted in regulation 7.14 as hourly, daily, weekly, monthly or annually.

Where information is required to be given hourly, then that information must be given within five minutes of the end of the hour in which it enters the person's data management system.

Where information is required to be given daily, then that information must be given no later than midday on the next working day after the day on which it enters the person's data management system.

Where information is required to be given weekly, then that information must be given no later than midday on the first working day of the week following the week in which it enters the person's data management system.

Where information is required to be given monthly, then that information must be given no later than midday on the second working day of the month following the month in which it enters the person's data management system.

Where information is required to be given yearly, then that information must be given no later than midday on the 20th working day of the financial year following the financial year in which it enters the person's data management system.

Regulation 7.16 Water information collected during a project of no more than 48 calendar months duration

This regulation deals with the giving of information for projects that are expected to be of no more than four years duration. Persons in Category H are not required to give water information from projects expected to be of no more than four years in duration. All other persons are required to give specified information collected in such projects within three months of the end of each financial year.

If the *interim period* or *grace period* ends partway through a project that is expected to be of no more than four years in duration, persons are only required to commence giving specified information from the project at the end of the first complete financial year that follows the end of the *interim period* or *grace period*.

If a project that is expected to be of no more than four years in duration ceases part way through a financial year, the person must give to the Bureau the specified information collected through the project in that financial year, within three months of the end of the financial year.

Regulation 7.17 Application to first information period

This regulation states that if the end of the *interim period* or *grace period* occurs after the start of a week then ongoing information that is required weekly, need only be given at the

end of the next week, but must include all specified information for the period commencing at the end of the *interim period* or *grace period*.

If the end of the *interim period* or *grace period* occurs after the start of a month then ongoing information that is required monthly, need only be given at the end of the next month, but must include all specified information for the period commencing at the end of the *interim period* or *grace period*.

Regulation 7.18 How information is to be given to the Bureau

This regulation prescribes how information is to be given to the Bureau. Information that came into a person's possession, custody or control up to the end of the *interim period* or *grace period*, should be given on CD, DVD or external hard drive or by way of the internet using a File Transfer Protocol (ftp) or using web services.

Ongoing information under regulation 7.14 that comes into a person's possession, custody or control from the end of the *interim period* or *grace period* onwards must be given by way of the internet using ftp or web services. Information in category 5; water use information, and information in category 6; information about rights allocations and trades in relation to water, may however be given by CD, DVD or external hard drive. Information in category 8a; water restrictions, may be given by email to an address available on the Bureau's website.

Part 10 - Murray Darling Basin Authority (special powers)

Regulation 10.01 – Identity Cards

Subsection 218(1) of the Act provides that the Authority must issue an identity card to an authorised officer in the form specified in the Regulations. The purpose of this regulation is to specify the form of the identity cards for the purpose of that subsection.

Schedule 1 - Hundreds of Livingston and Carcuma Area

This Schedule describes those parts of the Hundreds of Livingston and Carcuma that overlap with the Murray-Darling Basin for the purposes of regulation 1.05. The Hundreds of Livingston and Carcuma are the two subdivisions within the Tintinara Coonalpyn Prescribed Wells Area which overlap with the Murray-Darling Basin.

Schedule 2 Persons

This Schedule specifies the persons in each of the following eight categories of persons who must give specified water information to the Bureau. The eight categories of persons are:

Category A: Murray-Darling Basin Commission, Murray Darling Basin Authority, the Australian Government Department that administers the *Water Act 2007* and the following agencies of a State which are considered to be lead water agencies for the purposes of these Regulations:

- Department of Sustainability and Environment, Victoria;
- Department of Water and Energy, New South Wales;
- Department of Water, Land and Biodiversity Conservation, South Australia;
- Department of Primary Industries and Water, Tasmania;
- Department of Water, Western Australia;
- Department of Natural Resources and Water, Queensland;
- Department of Natural Resources, Environment and the Arts, Northern Territory;
- and

Category B: The other agencies of a State or the Commonwealth specified in Part 2 of Schedule 2;

Category C: The hydroelectricity generators specified in Part 3 of Schedule 2;

Category D: The owners or operators of major storages specified in Part 4 of Schedule 2;

Category E: The rural water utilities specified in Part 5 of Schedule 2;

Category F: The urban water utilities specified in Part 6 of Schedule 2;

Category G: The Catchment Management Authorities and others specified in Part 7 of Schedule 2; and

Category H: The providers of water information for flood forecasting and warning specified in Part 8 of Schedule 2.

Schedule 3 Subcategories of information

This Schedule details the subcategories of information in each of the ten categories of information listed in regulation 7.11. The ten categories of information are:

Category 1: Surface water resource information;

Category 2: Groundwater resource information;

Category 3: Information on major and minor water storages;

Category 4: Meteorological information;

Category 5: Water use information;

Category 6: Information about rights, allocations and trades in relation to water;

Category 7: Information about urban water management;

Category 8: Information about water restrictions;

Category 9: Water quality information; and

Category 10: Descriptive and reference information about water information in other categories.

Schedule 4 Commercially Sensitive Sites

This Schedule specifies sites from which, because of commercial sensitivity, information in the possession, custody or control of persons in Category C, is only required in a retarded and/or aggregated form.

Appendix B

Communication and Consultation Activities

Introduction

Since June 2007, the Bureau has continued to plan and implement a broad suite of communication and consultation activities related to its expanded water information role. These activities focus on three key areas:

- raising awareness across the water sector of the Bureau's new role and responsibilities under the Water Act;
- ensuring wide stakeholder consultation throughout the development of the Drafting Instructions that underpin the regulations under section 126 of the Water Act; and
- establishing and nurturing enduring consultative and advisory arrangements.

The Drafting Instructions consultation process focused on communicating the content of the Regulations to governments and industry and seeking feedback from those stakeholders. This process has been very valuable, leading to significant changes in the Drafting Instructions including, for example, the alignment of requests under the Regulations with existing reporting requirements, the recognition of working (and non working) days, and the exemption from giving information where a person reasonably believes the information is already in the Bureau's possession.

Water Act Working Group

The formal consultation process to support the drafting of the Regulations involved close collaboration with the Water Act Working Group. The Working Group was formed to discuss matters relating to the Water Act and associated agreements and Regulations. It was primarily focussed on the Murray Darling Basin States, but for national matters, such as water information, it included representation from all governments. As part of this consultative process, Working Group representatives provided the Bureau with written comments and reviews from other water agencies, water service providers and natural resource management groups in their respective jurisdictions.

The Bureau tabled an initial discussion paper on the scope of the Regulations with the Working Group on 13th November 2007. In response to input from this group and wider consultation, three subsequent iterations of this document were tabled, culminating in a final version, the Regulation Drafting Instructions, which were presented to the Minister for Climate Change and Water in late February 2008.

In developing the Drafting Instructions, the Bureau consulted widely including engaging diverse groups of industry stakeholders through the activities detailed below.

Water Information Industry Seminars

A series of Water Information Industry Seminars targeting the water sector and related groups were delivered in all Australian capital cities. Each seminar included presentations by representatives from the Australian Water Information Advisory Council (AWIAC), the Bureau of Meteorology and the lead agency for water information for each jurisdiction.

These seminars attracted a diverse range of participants from both private and public organisations with audience numbers ranging from 75 (Darwin) to well over 200 (both Adelaide and Melbourne). In total, 1150 people attended these seminars. Copies of the seminar presentations are available from www.bom.gov.au/announcements/water. Each industry seminar included an overview of the Water Act and the Drafting Instructions and offered participants the opportunity to ask questions or discuss any issues arising.

In some cases, the industry seminar was followed by a discussion forum focusing exclusively on the Drafting Instructions, their impact and any arising issues. Facilitated with the support of lead agencies for water information in each jurisdiction, persons likely to be affected by the Regulations were invited to these sessions which included a more detailed presentation followed by time to ask questions, raise issues and clarify details. Both Bureau and invited representatives found these sessions very useful and they often highlighted important issues for consideration in the drafting process.

Jurisdictional Reference Group on Water Information (JRGWI)

The Jurisdictional Reference Group on Water Information (JRGWI) is made up of two representatives from each of the state and territory governments. JRGWI plays a key role in bringing together the national water information activities of the Bureau with the regional water information activities undertaken by the states and territories. JRGWI membership is by invitation of the Director of Meteorology, based on the recommendations of the Department of Premier and Cabinet (or equivalent) in each jurisdiction. JRGWI provides a forum for states and territories to articulate their water information priorities and activities, improve the flow of water information between their agencies and the Bureau, discuss ways to contribute to the national water information strategy and provide feedback to the Bureau on its various water information products, both during the development and operational phases.

Representative agencies on JRGWI are responsible for liaising with other water data collectors in their jurisdiction regarding the Regulations and also the \$80 million Australian Government fund which the Bureau is administering to extend and modernise data collection nationally. Through JRGWI the Bureau is in discussion with many of the private data collectors included in the Regulations. Many of the major data collectors named in the Regulations have put forward or are proposing to put forward funding applications to the Bureau.

Direct Contact

Through participation and presentation at meetings, the Bureau has formally consulted with the following peak industry bodies about the Drafting Instructions:

Peak Body	Industry Represented
Minerals Council of Australia	Mining industry
Irrigation Australia Limited	Rural Water Utilities
Water Services Association of Australia	Urban Water Utilities

The Bureau has also consulted numerous other persons named in the Regulations through a range of activities including the commissioning of a consultant to develop, with the hydroelectricity industry, water information reporting methodologies as necessary to protect the commercial interests of the industry.

Email and mail

Detailed information about the Drafting Instructions was sent by email to contact officers for each of the persons named in the Regulations in December 2007 and in February 2008. This was complemented by a formal letter to the CEO of each organisation in early March. The letter and emails advised of the content of the Drafting Instructions, referred persons to the website and provided a contact email and phone number for further queries. Many enquiries from potentially affected persons were received as a result.

Website

A website was developed to assist persons in identifying their responsibilities under the Regulations. The site continues to be regularly updated and can be found at <http://www.bom.gov.au/water/>. It features information about the Water Act, the most recent copy of the Drafting Instructions and offers visitors answers to over 20 Frequently Asked Questions based on enquiries received by Bureau staff. The website also provides Bureau staff email and phone contact details for visitors requiring further information. By early June 2008, the site will also include a user friendly tool that allows visitors to view and print a tailored 'statement of requirement' for each individual person affected by the Regulations.

Appendix C

1 BUSINESS COST CALCULATOR – REGULATIONS UNDER THE WATER ACT 2007

(The Business Cost Calculator (BCC) was written some months prior to the drafting of the Explanatory Statement, to meet the requirements of the Office of Best Practice Regulation. To avoid repetition, the introductory paragraphs to the original BCC which mirror the introduction to the Explanatory Statement have not been repeated here. The language has also been updated to reflect the status of the Regulations.)

Objective

The *Water Act 2007* lists the additional functions of the Bureau of Meteorology (the Bureau). These new functions include the dissemination of Australia's water information, the publishing of a National Water Account, the issuing of National Water Information Standards and the provision of regular reports on the status of Australia's water resources and forecasts of its future availability.

The primary outcome of the policy will be the provision by the Bureau of an on-line comprehensive and near real-time water information interface, similar to the weather information service it currently provides. This interface will be free and the Bureau is making every effort to ensure that 3rd party usage of the information will not be limited in any way.

These Regulations will allow the Bureau to begin developing the information base required to fulfil these functions.

Develop Options

Option: The Australian Water Data Infrastructure Project

Efforts to make water information more accessible and specifically to improve the coordination of data collection and facilitate its sharing between the various governments were initially undertaken through the Australian Water Data Infrastructure Project (AWDIP), overseen by the Executive Steering Committee for Australian Water Resources Information (ESCAWRI).

ESCAWRI was, at the June 2005 Ministerial Council meeting, charged with implementing paragraph 86 of the Intergovernmental Agreement on a National Water Initiative (NWI) in which all states and territories agreed to:

- i) improve the coordination of data collection and management systems to facilitate better sharing of this information;
- ii) develop partnerships in data collection and storage; and
- iii) identify best practice in data management systems for broad adoption.

However, the consensus based process of AWDIP has in three years led to the sharing of only a few water quality attributes between some government agencies and limited progress on broad adoption of best practise standards.

National Data Sharing Agreement

It was widely recognised that restrictive licensing was impeding AWDIP and also periodic assessments such as the National Land and Water Resources Audit and the Australian Water Resources Assessment. The need to negotiate multiple agreements with different agencies significantly increased the cost of these assessments. In 2006, the National Water Commission attempted to achieve consensus on the wording of a National Water Data Sharing Agreement between all governments. Under this agreement, governments would make their water information available to each other under a non-restrictive licensing framework that facilitated the sharing and productive use of this information.

Though all jurisdictions gave in principle support for such an agreement, it was not possible to reach a consensus all were willing to sign. This failed process was one of the stimuli for the *Water Act 2007* under which the current Regulations will sit.

The Water Act 2007 and Regulations under Section 126 of the Water Act

Under the *Water Act 2007*, the Bureau of Meteorology is charged with holding, managing and disseminating all of Australia's water information, using this water information to report on the status of Australia's water resources, maintaining a comprehensive set of national water accounts and developing forecasts of future water availability. The Bureau must annually publish a National Water Account and regularly report on the status of Australia's water resources.

Regulations under Section 126 of the Water Act require specified persons who have custody or control of water information to supply that information to the Bureau.

Persons Included in the Regulations and in the Business Cost Calculator (BCC)

In formulating the policy to underpin drafting instruction for the Regulations, the Bureau has undertaken extensive research into persons who hold water information and consulted widely.

In the Regulations, the Bureau will require a targeted section of industry water information custodians to give information, however these persons are understood to control over 90% of Australia's managed water resource. The Bureau is also targeting those persons believed to have the greatest institutional capacity to meet reporting requirements in the near future.

In the Drafting Instructions (DI), the Bureau has specified the persons required to give water information. These are listed into categories from A – H. Many of these persons are government bodies; as such they will not be assessed in the BCC. All of the persons in Categories A, B and G in the DI are government bodies and are excluded from the BCC. Category H persons will also be excluded as the Regulations merely codify the existing arrangements whereby they co-operate with the Bureau in providing flood warning and forecasting information.

Table 1 shows the categories of persons and the number of persons in each of these categories who will be included in the BCC assessment. In many cases this does not include all of the persons in a particular category, the balance being made up of government persons. Where persons appear in more than one category in the DI, they are listed for the purposes of the BCC in the category where they will be required to provide most information.

Table 1 Categories of persons affected by the Regulations and the number of (non-government) persons in each of these categories who will be included in the BCC assessment.

Category	Number of non-government persons in the category
C Major hydroelectricity generators	6
D Owners and/or operators of major storages	6
E Major rural water service providers	13
F Urban water utilities	44
Total affected	69

Persons (Businesses) included in the BCC

Category C - Major hydroelectricity generators

Snowy Hydro and Hydro Tasmania are the most significant entities in the hydroelectric industry and collect the bulk of the water information of interest to the Bureau. Though the Victorian, NSW and Commonwealth governments own Snowy Hydro, it has since 2002 operated as a Corporations Act company, and so has been included in the BCC. The following six hydro-electric generators are included:

- 1) Snowy Hydro Limited,
- 2) Hydroelectric Corporation (Hydro Tasmania)
- 3) Stanwell Corporation Limited
- 4) AGL Hydro Partnership
- 5) Eraring Energy
- 6) Pacific Hydro

Category D - Owners and/or operators of major storages

The Bureau requires information on major storages used for urban water supply, energy generation and/or significant bulk water distribution. There is a major overlap between this category and category F, Urban Water Utilities. Information on major storages is critical to ensuring and planning for future water resource availability, allocation and possible restrictions on usage. The following six operators of major storages are private companies that are not listed in other categories:

- 1) Country Water
- 2) Delta Electricity
- 3) Macquarie Generation
- 4) Tarong Energy
- 5) International Power Australia
- 6) Loy Yang Power

Category E - Major rural water service providers (Private, non-State businesses)

The major rural water service providers listed were identified from the National Water Commission (NWC) Rural Benchmarking Framework Handbook, available at www.nwc.gov.au/nwi/national_benchmarking_framework.cfm. These agencies account for 90% of Australia's rural water diversions and the bulk of Australia's consumptive water use. The NWC determined that meeting their performance reporting obligations under the NWI would cost them less than 1% of their total revenue associated with delivery of rural water services. Gascoyne Water Co-operative Inc. has been added at their own request. The following 13 rural water service providers are included:

- 1) SunWater
- 2) Murray Irrigation Ltd
- 3) Murrumbidgee Irrigation Ltd
- 4) Coleambally Irrigation Cooperative Ltd
- 5) Central Irrigation Trust
- 6) Goulburn-Murray Rural Water Corporation
- 7) Southern Rural Water
- 8) Lower Murray Water
- 9) Grampians Wimmera Mallee Water (G-WMWater)
- 10) First Mildura Irrigation Trust
- 11) Ord Irrigation Cooperative Ltd
- 12) Harvey Water
- 13) Gascoyne Water Co-operative Inc.

Category F - Urban water utilities (Private, non-State businesses)

The listing of urban water utilities is based on the providers identified by the NWC in their Major Urban Water Suppliers Benchmark Report and Non-Major Urban Water Suppliers Benchmark Reports respectively. These reports are available at www.nwc.gov.au/nwi/national_benchmarking_framework.cfm. In some cases the titles of entities have been updated since that report. The identified organisations were included in these Regulations as they provide the majority of Australia's urban water supply and have the capacity to report water data without significant financial impost and largely are already doing so. The following 44 urban water utilities are currently included:

- 1) ACTEW Corporation
- 2) Country Energy
- 3) Fish River Water
- 4) Goldenfields Water
- 5) Hunter Water Corporation
- 6) MidCoast Water
- 7) Riverina Water
- 8) Rous Water
- 9) Sydney Catchment Authority

- 10) Sydney Water Corporation
- 11) Power and Water Corporation
- 12) Queensland Bulk Water Supply Authority
- 13) Brisbane Water
- 14) Fitzroy River Water (Rockhampton City Council)
- 15) Gladstone Area Water Board
- 16) Gold Coast Water
- 17) Ipswich Water
- 18) Logan Water
- 19) Sunshine Coast Council
- 20) Townsville City Council
- 21) Moreton Bay Regional Council
- 22) Redland Water (Redland City Council)
- 23) Fraser Coast Regional Council
- 24) Cradle Coast Water
- 25) Esk Water
- 26) Hobart Water
- 27) Barwon Water
- 28) Central Gippsland Region Water Authority
- 29) Central Highlands Water
- 30) City West Water Limited
- 31) Coliban Region Water Authority
- 32) East Gippsland Water
- 33) Goulburn Valley Water
- 34) Melbourne Water
- 35) North East Water
- 36) South East Water Limited
- 37) South Gippsland Water
- 38) Wannon Water
- 39) Western Water
- 40) Westernport Water
- 41) Yarra Valley Water Limited
- 42) Water Corporation
- 43) AQWEST
- 44) South Australian Water Corporation

Tasks associated with giving information to the Bureau

There are five tasks associated with the giving of water information to the Bureau:

- 1) A telephone census of the persons specified under s126;
- 2) Development of Data Transfer Blueprints;
- 3) Providing archive water information;
- 4) Establishing file transfer protocols for the ongoing provision of water information;
and
- 5) Ongoing provision of water information at the specified transfer frequencies.

The first four tasks are one-off set up costs. Task 5 is an ongoing cost. In this estimate, a day is taken to be 8hrs. As these tasks are necessarily carried out through a consultation process with the affected agencies, business will bear a cost. The Bureau anticipates that this work will be undertaken by a FTE on an EL1 pay scale, so each hour of agency time has been costed at \$30/hour.

Task 1: Telephone census & Interview survey

The Bureau will conduct a telephone census of specified persons prior to any requirement on them to give information. A number, as yet unknown, of the specified persons will not have the specified electronic information in their possession, custody or control and will be screened out at this telephone survey stage. For example, two of the Major Hydroelectric Generators (Category C), Eraring Energy and Pacific Hydro have already informed us that they do not have any water information in an electronic format.

Subsequent to the telephone survey, the Bureau will send a report to the interviewed persons confirming the information given in the survey.

Total impact = 69 persons x 30 minutes = 35hrs = 4.5days

Total cost = 35hrs x \$30/hr = \$1,050

Task 2: Develop a Data Transfer Blueprint

In some cases the actual information that persons will give will amount to only one or two reporting obligations. This is likely to be the case for some of category D, Owners and/or Operators of Major Storages. In these cases the telephone census will be sufficient to enable the Bureau and the persons to draw up a Data Transfer Blueprint (DTB). This DTB will list all of the specified information assets, their existing formats and outline the process to transfer the data.

In the case of most of the persons who have specified information, a personal visit will likely be required. Subsequent to the telephone census a Bureau officer will visit each such person to discuss with them their reporting obligations, the specified data that is in their possession, custody or control and what data transfer processes are required to enable the provision of that data to the Bureau. Out of this survey process the Bureau will, with the person, develop a DTB.

The time needed to develop this DTB will vary significantly depending on the amount and heterogeneity of water information each affected person collects. In some cases major water information managers may have multiple databases. We estimate a half day is required per significant and relevant database to complete the survey process.

Category C

Snowy Hydro and **Hydro Tasmania** have 5 digital databases each, suggesting 2.5 days each as necessary for the survey. **Stanwell Corporation Limited** and **AGL Hydro Partnership** are both assumed to have 2 databases each, indicating 1 day will be necessary. Eraring Energy and Pacific Hydro are not believed to have any electronic information.

Total for Category C = 2.5 + 2.5 + 1 + 1 = 7days

Total cost for Category C = \$1,680

Category D

The six businesses affected in Category D and not identified elsewhere in the Regulations are only required to report water information for major storages, a limited data set and as

stated earlier may not even need to undertake this task. The relevant information is likely to be held in only one database per organisation. We believe that a 2 hour visit, at most, with each organisation will be required.

Total for Category D = $6 \times 2\text{hrs} = 12\text{ hrs}$ or 1.5 days

Total cost for Category D = \$360

Category E

Of the 13 major rural water service providers, it is estimated that

- 1 has 5 databases;
- 9 have 3 databases each;
- 2 have 2 databases each; and
- 1 has a single database.

These persons are mainly required to provide annual data and this requirement aligns closely with their current information provisions under the National Water Initiative Performance Reporting Requirements. The requirement to set up periodic file transfer processes will therefore be limited to the new daily and weekly data they will be required to provide. So for 12 of the major rural water service providers, 0.5 days each is expected to suffice, while SunWater will most likely require 1 day.

Total for Category E = $(12 \times 0.5) + (1 \times 1) = 7\text{ days}$

Total Cost for Category E = \$1680

Category F

Forty four businesses are affected in Category F, the majority of who are believed to have 3 digital databases each, while four of the larger agencies (Sydney Water Corporation, Melbourne Water, WA Water Corporation and SA Water) are believed to have five digital databases each. Almost all the data required is at an annual frequency and is aligned with current information provisions under the NWI Performance Reporting Requirements. These businesses generally have more extensive data networks than the Rural Utilities and will be in many cases reporting storage, flow and water quality data.

Total for Category F = $(40 \times 1.5) + (4 \times 2.5) = 70\text{ days}$

Total cost for Category F = \$16,800

Table 2 summarises the estimated time and cost impost associated with the telephone survey and the development of a DTB.

Table 2 shows the estimated time and costs associated with tasks 1 and 2.

Category	No. affected	Days	Hours	Cost (\$)
All Categories – Telephone Census	70	4.5	35	1050
Category C	4	7	56	1680
Category D	6	1.5	12	360
Category E	14	7	56	1680
Category F	44	70	560	17000
Total	68	91	722	22000
Average per agency			11	325

Task 3: Providing Archive Data

The Regulations require persons to give the stored (historic) water information that is in their possession, custody or control. The FTB (Task 2) will have already detailed what stored water information needs to be given. We anticipate that this stored information will be given on a storage device (burnt to CD or DVD, or stored on an external hard drive) or in some cases be transferred to the Bureau using a file transfer protocol.

Category C

There are four hydroelectricity generators who may have electronic information, with Snowy Hydro and Hydro Tasmania having much greater data holdings than either Stanwell Corporation Limited or AGL Hydro Partnership. We estimate 8 hours each for the two larger data managers and 4 hrs each for the smaller two.

Total for Category C = (8hrs x2) + (4hrs x 2) =24 hrs = 3 days

Total cost for Category C = \$720

Category D

The seven businesses affected in Category D and not identified elsewhere in the Regulations are only required to report water information for major storages. The Bureau believes this task will require 2 hrs per organisation.

Total for Category D = 6 x 2hrs = 12hrs or 1.5 days

Total cost for Category D = \$360

Category E

The fourteen rural water service providers are not believed to have extensive electronic archive records. The Bureau believes this task will require 4 hrs per organisation.

Total for Category E = 13 x 4hrs = 52 hrs or 7 days

Total cost for Category E = \$1,500

Category F

Forty four businesses are affected in Category F, and these organisations will probably have more extensive electronic archives than the Rural Utilities. The Bureau believes this task will require 6 hrs per organisation.

Total for Category F = 44 x 6hrs = 264 hrs = 33 days

Total cost for Category F = \$8,000

In summary, for Task 3, the provision of archive data:

Table 3 shows the total amount of time required to provide the archive data.

Category	No. affected	Days	Hours	Cost (\$)
Category C	4	3	24	720
Category D	6	1.5	12	360
Category E	14	7	56	1500
Category F	44	33	264	8000
Total	68	45	360	10800
Average per agency			5	160

Task 4: Establishment of automated FTP transfers for on-going data provision

The Bureau anticipates that the ongoing provision of data at a less than annual time step will be achieved by automated transfers using file transfer protocols (FTP). For annual data transfers, storage devices such as CDs or DVD will probably be used. In the case of the Rural and Urban Water Utilities (Categories E and F) annual data will be supplied via a web based database that the Commonwealth is funding through the National Water Commission.

This task will build on the analysis and data trawl activities undertaken in the previous two steps. There will be further work to analyse database architecture and to extract data from these databases in a useful format. Once completed, the installation of a file transfer protocol client and set up of automated transfers is anticipated to be a relatively simple process.

Establishing the ongoing transfer capacity in a typical agency involves two tasks:

- Setting up a FTP will require 5 days per agency, irrespective of the number of databases they operate; and
- Extracting and/or formatting the data is likely to take 5 days per database system. However, within a particular agency this time should decrease (by half) per system as additional systems are processed. Moreover, systems that are compatible with the Bureau's systems, are simpler (such as use HYDSTRA) or those of smaller agencies may also require less time (2 – 2.5 days) per system. Of course complex systems or systems of limited formatted data may require up to twice (10 days) the nominal time.

There is a risk that existing faults or incompatibilities in systems could, in the processes of setting up the FTP and initial formatting, lead to breakdowns. Breakdowns are however, by their nature, impossible to predict. Where breakdowns occur, it is estimated that they may add a 20% increase in the overall time and cost.

Category C – Major hydroelectricity providers

Snowy Hydro and **Hydro Tasmania Ltd** will be required to provide current updates of much of the specified information on a daily basis. As both organisations operate extensive monitoring networks this represents a substantial amount of data with a high level of complexity. The Bureau believes each agency has 5 digital databases and use HYDSTRA consistently across them. Thus for each of these organisations:

Setup: 5 days

Data formatting: 25 days (HYDSTRA but of high complexity → 5 days/sys)

Total: 30 days each in the case of Snowy Hydro and HydroTas to establish an FTP.

Stanwell Corporation and **AGL Hydro Partnership** will likewise be required to provide daily updates on similar data but the number of data assets will be considerably less than those of Snowy Hydro or Hydro Tas. They are each believed to have 2 databases. Thus for each of these organisations:

Setup: 5 days

Data formatting: 5 days (no HYDSTRA but data of low complexity → 2.5 days/sys)

Total: 10 days each in the case of Stanwell Corporation Limited and AGL Hydro Partnership to establish an FTP.

Total Category C = (2 x 30) + (2 x 10) = 80 days

Total Cost for Category C = \$19,200

Category D – Major storage owners

It is expected that establishing data transfers with the seven major storage operators being assessed under Category D will be relatively inefficient as they do not have established systems in place for external reporting of their water data. However they are not required to

report a substantial amount of data and this data is held in a single database. Thus for each of these organisations:

FTP setup: 5 days

Data formatting: 5 days (no HYDSTRA but of low complexity)

Total: 10 days (15 in case of breakdown) each in the case of these 7 major storage owners to establish an FTP.

Total Category D = $10 \times 6 = 60$

Total Cost for Category D = \$14,400

Category E – Major rural water service providers

Major rural water service providers have a substantial ongoing daily and annual reporting requirement under the Regulations. Of the fourteen major rural water service providers, it is estimated that

- 1 has 5 databases;
- 9 have 3 databases each;
- 2 have 2 databases each; and
- 1 has a single database.

Some of these databases are in HYDSTRA.

The rural utility with five-databases will require:

FTP Setup: 5 days

Data formatting: 15 days (no HYDSTRA but of low complexity)

Total: 1×20 days

The other rural water utilities with fewer databases will require proportionally less time

Total FTP setup for the 9 rural water service utilities

$1 \times 20 + 9 \times 15 + 1 \times 10 + 1 \times 8 = 183$ days

Total cost for Category E = \$44,000

Category F – Urban water utilities

Under the Regulations, urban water utilities will also have a substantial daily and monthly reporting requirement. As these are highly computer dependant organisations the Bureau anticipates that they will have good documentation for their systems. It is not known how many of these agencies use HYDSTRA consistently across their systems.

Of the 44 businesses affected in this Category, 40 are believed to have 3 digital databases each, while 4 of the larger agencies (Sydney Water Corporation, Melbourne Water, WA Water Corporation and SA Water) are believed to have 5 digital databases each.

For each of the forty utilities with three- databases each:

FTP Setup: 5 days

Data formatting: 10 days (no HYDSTRA but of low complexity)

Total: 15 days

For each of the four remaining providers (Sydney Water Corporation, Melbourne Water and Power and Water Corporation)

Setup: 5 days

Data formatting: 25 days (no HYDSTRA and of high complexity)

Total: 30 days in the case of these larger providers to establish an FTP.

Total Category F = $(40 \times 15) + (4 \times 30) = 720$ days

Total cost for Category F = \$173,000

Table 4 shows the estimated total time required to assess existing data systems, transfer archive data and set up automated FTPs.

Category	No. affected	Days	Hours	Cost (\$)
Category C	4	85	680	19,200
Category D	6	60	480	16800
Category E	14	183	1464	44000
Category F	44	765	6120	173000
Total hours to complete initial analysis and set up	68	1113	8900	255000
Average per agency		15.5	122	3800

Agencies will be required to bear the cost of establishing an automated FTP, so this average of 122 hours/year for each agency has been used in the Business Cost Calculator cost analysis. The Bureau anticipates that this work will be undertaken by an FTE on an EL1 pay scale, so each hour of agency time has been costed at \$30/hour. On average, each agency will spend approximately \$3750 as a one off cost, or \$267,000 (in total) for all affected agencies to establish an automated FTP.

Task 5: Ongoing data provision

Once the initial provision of historic data is completed and systems are in place for agencies to automatically provide data to the Bureau as required by the Regulations, there will be a recurrent time impost associated with ongoing data provision. This will vary depending on the amount of data being transferred.

Because of the risks to life and property associated with timely flood warning, the Bureau has stringent service level agreements in place with flood warning providers. In the case of these Regulations for water information, however, the Bureau will not impose stringent timelines or agreed service levels for data provision. Where data quality control systems or data transfer systems malfunction, the Bureau will only expect data providers to provide corrected or missing data as it is produced by their data providers own quality control processes.

Data transfer, under the Regulations, is specified at daily, weekly, monthly or annual frequencies. In some cases where updates are not specified, providers are required to transfer data as it is updated. The following analysis indicates the estimated time data providers will be required to devote to meeting these data transfer frequency requirements.

Hydroelectricity generators and storage operators, categories C and D, are required to transfer large amounts of water information. They are required to transfer much of this information daily, apart from one attribute which is required as updated and commercially sensitive data which is only required after 2 months.

The Rural Water Utilities, Category E are required to transfer average amounts of information annually and medium amounts of information daily.

The Urban Water Utilities are required to transfer large amounts of data annually and medium amounts of data daily.

The Bureau aims, to as great an extent as possible, to automate these data transfers. In most cases, the automated FTPs will have been established such that the daily time impost on individual organisations will be negligible. However, it is recognised that there will be a mix of data types from agencies and not all of these will be suited to automation. So, for example, a daily report will occur when the automated processes established in the previous task transmits data to the Bureau. An employee will then need to spend approximately 5 minutes a day ensuring this has occurred and manually transmitting any data which could not be automated.

Table 5 shows the estimated time impost associated with the most common data transfer frequency requirements.

Table 5 shows an approximate upper bound to the amount of operator time the ongoing reporting tasks will take, depending on the size of the agency.

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	Average reporting requirement	Medium reporting requirement	Large reporting requirement
Daily	5min/day	10min/day	15min/day
Annually	8.5 hours/year	17 hours/year	42.5 hours/year
As updated	2 hours/year	4 hours/year	8 hours/year
Repair time in case of system failure	8.5 hours/year	21.25 hours/year	42.5 hours/year

Category C

Both Snowy Hydro and Hydro Tasmania providers are considered to be large agencies for the purposes of this analysis, while Stanwell Corporation and AGL Hydro Partners are average agencies. It is estimated that each major hydroelectricity provider will require an average of 71 hours per year to meet its reporting requirements.

Category D

All 6 businesses identified as major storage owners and not affected elsewhere in the Regulations are considered to be average sized agencies. Each of the 6 businesses affected under Category D is estimated to require at most 30 hours per year to comply with their ongoing reporting requirements.

Category E

The 13 major rural water service providers have a substantial ongoing reporting burden as outlined below. Twelve of these are considered to be average agencies while SunWater is considered to be a medium agency. It is estimated that each of the 12 average size agencies in Category E will require at most 40 hours per year to comply with the reporting obligations and SunWater will require at most 78 hours per year.

Category F

The 44 urban water service providers in Category F are subject to a heavy annual reporting requirement. Of these Sydney Water Corporation, Melbourne Water, WA Water Corporation and SA Water are considered to be large agencies. The remaining 40 are considered to be medium sized agencies. It is estimated that each of the 40 medium size agencies will require at most 78 hours per year and the four larger agencies will require at most 135 hours per year to meet their reporting requirements.

Table 6 summarises the estimated time and cost to meet ongoing reporting requirements each year:

Table 6 displays an upper bound to the time and cost imposed for each category to meet their on-going reporting requirements.

Category	No. affected	Hours per year	Cost per year (\$)
Category C	4	425	12,700
Category D	6	185	5,475
Category E	13	545	16,500
Category F	44	3,650	110,000
Total affected	67		
Estimated total hours per year and annual cost for all agencies to provide ongoing information	4800		144,000
Estimated average hours and cost per year for each agency	72		2,100

Agencies will be required to bear the cost of ongoing data provision, so this average of 72 hours/year for each agency has been used in the Business Cost Calculator cost analysis. The Bureau anticipates that this work will be undertaken by an FTE on an EL1 pay scale, so each hour of agency time has been costed at \$30/hour. On average, each agency will spend - as an upper limit - \$2,160/year to meet regulatory reporting requirements; or \$144,000 as an aggregate total for all the affected agencies.

Task Summary

In summary, the cost for the first year is dominated by the set-up impost, where after the yearly on-going cost as presented here are only an upper limit. It is expected that in most cases the Regulations under the Water Act will impose minimum extra impost for business. The Bureau is collaborating on the modernisation of Australia's water information data collection, and as such expects the processes outlined in the Tasks above to become increasingly automated in years to come. Below is a table displaying a summary of first and later year's costs per Category.

Table 6 displays the total costs per Category in the first year and in later years

Category	Total cost in the first year (\$)	Later year/on-going costs (\$)
C	35,000	38,000
D	23,000	5,500
E	64,000	82,000
F	300,000	386,000
Total all categories	430,000	145,000

Uncertainties

This BCC is well informed but is an estimate. We expect that Task 1, the Telephone Census, will actually screen out many of the information providers listed here, significantly reducing the number of persons undertaking the subsequent tasks. This may apply particularly to categories D and F.

Apart from Category C and D from whom most data is requested on a daily time step, more than half of the water information elements required from other persons are required annually. The Bureau would prefer to set up automatic information transfer over the internet in all cases (FTP), and will seek to co-invest with major data owners to enable them to do so.

Information that is required annually can be given by CD, DVD or similar means. Category E and F persons are currently, or will this year, be required to report the same or very similar information to the NWC for NWI Performance Reporting requirements. The Bureau and the NWC are actively working with the parties in E and F on an agreement that will obviate the need for any double giving of information in this regard and once agreed, the Commonwealth will fund a national web-based system to enable the information transfer processes to meet both NWC and Bureau requirements.

It is considered likely that the on-going reporting task will be less burdensome and less prone to breakdown in the larger entities with modern sophisticated systems than the estimates in the BCC suggest.

Bureau funded modernisation of data systems

The Bureau is administering an \$80 million Australian Government fund to assist data managers to modernise their water information collection, management and transfer systems. Through this programme the Bureau will assist the priority data providers to install state of the art systems that will result in major efficiencies and streamlining of their water information processes both for internal and external management and reporting purposes including the requirements of these Regulations.