



Water Information Bulletins target technical and operational staff in all organisations contributing to Australia's *Improving Water Information Program*.

Bulletins are published as required and previous editions can be viewed at: www.bom.gov.au/water

The purpose of this Bulletin is to provide organisations currently named in the Water Regulations 2008, with updated information about data delivery requirements and Category 7: Information about urban water management.

Data delivery

Data delivery formats

The Bureau of Meteorology is preparing a Water Data Transfer Format (WDTF) file format for delivery of data in accordance with the Water Regulations 2008. WDTF is based on an XML schema developed by the Bureau and CSIRO. To ensure robust and reliable data delivery to the Bureau's water resources information system, it is essential to minimise the number of data formats. Currently there are three formats accepted by the Bureau:

- Hydstra BOM export
- TimeStudio BOM export
- WDTF

To assist organisations that store their water data in less structured systems such as spreadsheets, the Bureau is developing WDTF support tools. These tools will support organisations to reformat data from their systems into WDTF prior to its delivery to the Bureau. The scoping of tool requirements will be completed by the end of 2008 and development will commence soon after. The development schedule means that organisations due to deliver data on 2 February 2009 may not have sufficient time to implement and test these tools before this deadline.

Organisations intending to use the WDTF support tools to deliver data to the Bureau in February 2009 should advise the Bureau via email: waterdata@bom.gov.au as soon as possible.

When the WDTF support tools completion date is confirmed—likely during late January—staff from the Bureau will contact you to discuss a revised data delivery schedule for your organisation.

Organisations using a structured data base management system are strongly encouraged to develop an integrated export capability, based on the WDTF, to replace these WDTF support tools. Depending on priorities and funding demands, support for the development of a WDTF capacity may be available from the 2009/2010 round of the Modernisation and Extension Fund managed by the Bureau. Further details will on the next round of funding will be available on the Bureau website: www.bom.gov.au/water/funding_program.shtml around March 2009.

Data delivery update

Records of historical data have been provided to the Bureau by organisations from around Australia. The historical records are being extracted from DVDs or CDs and stored on the Bureau's file management system.

Ongoing data is being delivered by organisations to the Bureau's FTP site in accordance with Regulation requirements. The Bureau is saving these raw files to its file management system. Where the data has been provided in the Hydstra BOM export format it will be loaded into a single Hydstra database by the Bureau. There are a number of issues that prevent the successful consolidation of these files including:

- incorrect mapping of variables
- incomplete mapping of quality codes
- failure to run the ratings validation check before the Hydstra BOM export
- management of continuous and daily read observations from a single site.

Organisations should ensure these issues are dealt with before Hydstra BOM export files are supplied to the Bureau.

Continuous and daily read data extracts from Hydstra

There are occasions when sites contain a continuous time series variable and daily read variable that represent the same parameter. Both of these variables can be mapped to the same parameter name and cause overlaps. In order to support the successful loading of data from Hydstra systems into the Bureau's data management systems, data providers are requested to use the Hydstra Data source utility to select continuous time series data before daily read data, allowing a single time series export from the site to the Bureau.

Correction: File naming, Regulations Online

Please note that an error in the "Data file naming" section of Regulations Online has been corrected: <http://www.bom.gov.au/water/regulations/information-delivery.shtml>.

The corrected example has hyphen "-" after the Site Id. rather than dot ".", as was previously shown.

For further information about data delivery to the Bureau, please contact our data manager Todd Lovell, by email at t.lovell@bom.gov.au or email: waterdata@bom.gov.au.

Water Regulations 2008

Category 7: Information about urban water management

The Bureau of Meteorology has received numerous queries about Category 7: Information about urban water management. This Bulletin clarifies the information the Bureau requires from urban water utilities under Category 7. The Water Regulations 2008 can be viewed in full at: <http://www.bom.gov.au/water/regulations/water-2008.shtml>

General comments about terminology

It has come to our attention that the common urban water management terms listed below are currently not defined adequately, and in some cases are not defined or referred to in the Regulations. We have included our definitions of these terms in this Bulletin to assist you in understanding the information we require now or may require in the future. The terms should be read with reference to the table of subcategories that follows.

Non-revenue water is the amount of water not accounted for by billed water use metering. It may include delivery systems losses such as leakage from water mains, water stolen or unaccounted for due to inaccurate meters, water used for fire-fighting purposes and water used for cleaning water mains.

Recycled water is water generated from sewage, greywater or stormwater systems that is treated as required then used as a water supply source.

Sewage is waste from residential and non-residential properties collected and/or treated via sewerage infrastructure. It includes any volumes collected in the sewerage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. It covers both untreated and treated sewage but does not include sewage treatment plant effluent that is subsequently recycled.

Take: This term is defined in the *Water Act 2007* but it has generated some confusion. In Category 7, the term "volume of water taken" refers to the water that the named urban water utility extracts from a particular water source. It does not include the water extracted by another infrastructure operator on its behalf.

Reporting period: You may not currently hold data in the weekly reporting period specified in the Regulations. Please supply data in the shortest reporting period available if that is longer than one week.

Potable and non-potable water: Under Regulations subcategories 7h – 7m, please report separate values for potable and non-potable where you have that information.

Specific comments about Category 7 items

Subcategory no.	Subcategory information	Clarification comment
7b	The total weekly volume of water taken from groundwater, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7b includes the portion of groundwater volume originating from artificial recharge and desalinated groundwater.
7c	The total weekly volume of water taken from desalination, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7c only includes water taken from marine desalination and therefore excludes desalinated groundwater.
7d	The total weekly volume of water taken from recycling, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7d includes the total amount of recycled water taken from your organisation's sewerage infrastructure (e.g. sewage treatment plant) and used for supply either to your customers or to another water utility as a bulk recycled water supply. It also includes recycled water used by your own organisation but not supplied to a customer.
7e	The total weekly volume of water received from infrastructure operators, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7e refers to water supplied to you from another organisation, such as a bulk water utility and/or neighbouring water utility. The water may or may not have been purchased. The main point is that another organisation has provided your organisation with the water. The volume includes water which is subsequently exported to another water utility. 7e excludes purchased recycled water which is included in 7f. It also excludes water that is included in "volume of water taken" under subcategories 7a, 7b, 7c and 7d.
7f	The total weekly volume of bulk recycled water purchased, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7f includes the total amount of recycled water received by your organisation from another organisation (infrastructure operator). The water may or may not have been purchased. The main point is that another organisation provided you with the recycled water, rather than you directly taking it from your own sewerage infrastructure (e.g. sewage treatment plant).
7h	The total weekly volume of residential water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7h includes both potable and non-potable water, supplied to residential customers located within your organisation's management area. The volume includes both total metered and estimated non-metered residential water supplied.

Subcategory no.	Subcategory information	Clarification comment
7i	The total weekly volume of commercial, municipal and industrial water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7i includes both potable and non-potable water supplied to commercial, municipal and industrial customers located within your organisation's management area. The volume includes both total metered and estimated non-metered commercial, municipal and industrial water supplied.
7j	The total weekly volume of water supplied, other than residential, commercial, municipal and industrial water, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7j includes all the potable and non-potable water supplied to customers other than residential, commercial, municipal and industrial customers located within your organisation's management area. It also includes non-revenue water (see definition on page 2). "Other" may include agricultural or horticultural customers. The types of use falling into the "other" category should be specified in Category 10e: Metadata about other water information. The volume includes both total metered and estimated non-metered 'other water' supplied.
7k	The total weekly volume of urban water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7k includes all potable and non-potable water supplied to residential, commercial, municipal and industrial, and other customers. Note that 7k includes the non-revenue water which has been reported as part of 7j. The volume includes total metered and estimated non-metered urban water supplied.
7l	The total weekly volume of bulk water exports, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7l is the bulk, non-recycled, potable and non-potable water delivered to another water utility or infrastructure operator for the purposes of supplying their customers. Usually this water will be exported outside your organisation's jurisdictional boundaries. To prevent overlap with Category 7m, this data should not include the bulk recycled water exports which are reported in Category 7m.
7m	The total weekly volume of bulk recycled water exports, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7m refers to the volume of recycled water (potable and non-potable) delivered to another water utility or infrastructure operator for the purpose of supplying recycled water to their customers. This exported bulk recycled water could subsequently be used for urban and non-urban uses.

Subcategory no.	Subcategory information	Clarification comment
7n	The total weekly volume of sewage discharges from a sewage discharge point into a watercourse, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	<p>Note the definition of “sewage” on page 2 which is broader than just untreated sewage.</p> <p>When reporting sewage discharge into a watercourse, please report all sewage discharge including:</p> <ol style="list-style-type: none"> (1) surface water or ocean within or adjacent to the organisation’s geographic area of responsibility (2) sewerage infrastructure operated by another organisation. <p>This data includes all discharges of sewage treatment plant effluent into watercourses and marine water bodies and sewage exported to another sewerage infrastructure operator.</p>
7o	The total weekly volume of stormwater discharges from a stormwater discharge point into a watercourse, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	<p>When reporting stormwater discharge into a watercourse, please report all sewage discharge including:</p> <ol style="list-style-type: none"> (1) surface water or ocean within or adjacent to the organisation’s geographic area of responsibility (2) the stormwater drainage system operated by another organisation. <p>This data includes all discharges of stormwater into watercourses and marine water bodies and stormwater exported to another stormwater drainage system operator.</p>

For further information about the Water Regulations 2008, please contact Stephanie Holden by email: s.holden@bom.gov.au