



Australian Government

Bureau of Meteorology

Metadata and Contextual Information Requirements

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Description: For the purposes of Regulation 1.06 and 7.11 of the *Water Regulations 2008*, this document sets out the metadata and contextual information that must be given to the Bureau of Meteorology, at the same time as water information in Categories 1 to 6, 8, 9 and 11.

All metadata and contextual information requirements listed for particular subcategories or categories of water information must be given if they are in a person's possession, custody or control.

Hyperlinks: All linked references are for explanatory purposes only and do not form part of this incorporated document.

VERSION CONTROL

Version	Release date	Operative from	Operative up to and including	Description of changes
1, 2012	5 July 2012	5 July 2012	27 February 2014	N/A
1, 2014	28 February 2014	28 February 2014	27 November 2014	Added requirements for new subcategories 2d and 2e
2	15 May 2014	28 November 2014	27 July 2015	Added detailed element lists for Category 1 and subcategories 2a, 2b and 2c
3	20 January 2015	28 July 2015	1 March 2017	Added detailed element lists for Category 3 and Category 6
4	29 August 2016	2 March 2017	27 March 2017	Added detailed element lists for Category 4 and Category 9
4.1	28 March 2017	28 March 2017	1 October 2017	Document revised to align with the implementation of the <i>Water Amendment (Water Information) Regulations 2017</i>

Version	Release date	Operative from	Operative up to and including	Description of changes
5	28 March 2017	2 October 2017	Open	Added detailed element list for Category 5

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Metadata and contextual information requirements for subcategories of water information in Schedule 3 of the *Water Regulations 2008*

Metadata and contextual information requirements for category 1 — surface water resource information

Further information about the elements listed below, including how they are grouped together, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategories 1a and 1b</p> <p><i>For explanatory notes on subcategories 1a and 1b metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat1-v1.pdf</i></p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Time series ID
Time series description
Data point interpolation type
Measurement status
Measurement date and time
Measurement unit
Measurement quality

Subcategories 1a and 1b

For explanatory notes on subcategories 1a and 1b metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat1-v1.pdf

Stream gauging ID

Stream gauging parameters

Stream gauging procedure

Watercourse name

Flow control type

Cease-to-flow level

Conversion table name

Conversion table start date-time

Conversion table relationship

Conversion table value pairs

Conversion table interpolation parameters

Metadata and contextual information requirements for category 2 — ground water resource information

Further information about the elements listed below, including how they are grouped together, the elements which are common to subcategories 2a and 2b, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategory 2a</p> <p><i>For explanatory notes on subcategory 2a metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat2-v1.1.pdf</i></p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Time series ID
Time series description
Data point interpolation type
Measurement status
Measurement date and time
Measurement unit
Measurement quality
Groundwater level measurement procedure name

Subcategory 2a

For explanatory notes on subcategory 2a metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat2-v1.1.pdf

Groundwater level measurement procedure description

Groundwater level sensor

Groundwater level vertical datum type

Groundwater level vertical datum elevation

Groundwater level measurement axis

Bore construction date

Bore natural surface level

Bore top of casing elevation

Bore pipe description

Bore pipe aquifer

Bore pipe screen information

Bore pipe depth

Bore pipe yield

<p>Subcategory 2b</p> <p><i>For explanatory notes on subcategory 2b metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat2-v1.1.pdf</p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Time series ID
Time series description
Data point interpolation type
Measurement status
Measurement date and time
Measurement unit
Measurement quality
Groundwater pressure measurement procedure name
Groundwater pressure measurement procedure description
Groundwater pressure sensor
Groundwater pressure temperature compensated

Subcategory 2b

For explanatory notes on subcategory 2b metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat2-v1.1.pdf

Bore construction date

Bore natural surface level

Bore pipe description

Bore pipe aquifer

Bore pipe screen information

Bore pipe depth

Bore pipe yield

Subcategory 2d

Metadata and contextual information relating to:

- Geologic units
- Hydrogeologic units
- Hydrogeologic complexes

Subcategory 2e

Metadata and contextual information required within the [ESRI geodatabase in the National Groundwater Information System schema](#)

Metadata and contextual information requirements for category 3 — water storage information

Further information about the elements listed below, including how they are grouped together, the elements which are common to subcategories 3a, 3b, 3c, 3d, 3da and 3e, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategory 3a</p> <p><i>For explanatory notes on subcategory 3a metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Conversion table name
Conversion table start date and time

Subcategory 3a

For explanatory notes on subcategory 3a metadata and contextual information, go to:

http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf

Conversion table relationship

Conversion table value pairs

Conversion table interpolation parameters

Measurement date and time

Measuring point vertical datum elevation

<p>Subcategory 3b</p> <p><i>For explanatory notes on subcategory 3b metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Conversion table name
Conversion table start date and time
Conversion table relationship
Conversion table value pairs

Subcategory 3b

For explanatory notes on subcategory 3b metadata and contextual information, go to:

http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf

Conversion table interpolation parameters

Measurement date and time

Measuring point vertical datum elevation

<p>Subcategory 3c</p> <p><i>For explanatory notes on subcategory 3c metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Start date and time of measurement
End date and time of measurement
Purpose of water released or delivered

<p>Subcategory 3d</p> <p><i>For explanatory notes on subcategory 3d metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Start date and time of measurement
End date and time of measurement
Purpose of water released or delivered

<p>Subcategory 3da</p> <p><i>For explanatory notes on subcategory 3da metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Start date and time of measurement
End date and time of measurement
Water source

<p>Subcategory 3e</p> <p><i>For explanatory notes on subcategory 3e metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf</p>
Data owner ID
Data provider ID
Storage name
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Times series ID
Time series description
Data point interpolation type
Measurement status
Measurement unit
Measurement quality
Watercourse name
Measurement date and time

Subcategory 3f

For explanatory notes on subcategory 3f metadata and contextual information, go to:

http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat3-v1.pdf

Data owner ID

Data provider ID

Storage name

Location of the dam

Watercourse name

Full supply level

Minimum supply level

Total storage capacity

Accessible storage capacity

Dead storage capacity

Metadata and contextual information requirements for category 4 — meteorological information

Further information about the elements listed below, including how they are grouped together, the elements which are common to all subcategories, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategories 4a, 4b and 4c</p> <p><i>For explanatory notes on subcategories 4a, 4b and 4c metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat4-v1.pdf</i></p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Site elevation
Site geographic description
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Measuring point elevation
Time series ID
Time series description
Data point interpolation type
Measurement date and time
Measurement status
Measurement unit

Subcategories 4a, 4b and 4c

For explanatory notes on subcategories 4a, 4b and 4c metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat4-v1.pdf

Measurement procedure

Measurement quality

Measurement comments

Duration of measurement

<p>Subcategories 4d, 4e, 4f, 4g, 4h, 4i and 4j</p> <p><i>For explanatory notes on subcategories 4d to 4j metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat4-v1.pdf</p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Site elevation
Site geographic description
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Measuring point elevation
Time series ID
Time series description
Data point interpolation type
Measurement date and time
Measurement status
Measurement unit
Measurement procedure
Measurement quality
Measurement comments

Metadata and contextual information requirements for subcategories in category 5 — water use

Further information about the elements listed below, including how they are grouped together, the elements which are common to all subcategories, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategory 5a</p> <p><i>For explanatory notes on subcategory 5a metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf</p>
Data owner ID
Data provider ID
Name of State or Territory
Name of surface water system
Name of surface water management area
Water system spatial boundaries
Water management area spatial boundaries
Purpose of water taken
Unit of measure
Comments

Subcategories 5b and 5c <i>For explanatory notes on subcategories 5b and 5c metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf</i>
Data owner ID
Data provider ID
Name of State or Territory
Name of surface water system
Name of surface water management area
Name of irrigation network
Water system spatial boundaries
Water management area spatial boundaries
Unit of measure
Comments

Subcategory 5d <i>For explanatory notes on subcategory 5d metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf
Data owner ID
Data provider ID
Name of State or Territory
Name of surface water system
Name of surface water management area
Water system spatial boundaries
Water management area spatial boundaries
Purpose of water taken
Resource type
Unit of measure
Comments

Subcategory 5e <i>For explanatory notes on subcategory 5e metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf
Data owner ID
Data provider ID
Origin State or Territory
Origin water system
Origin water management area
Destination State or Territory
Destination surface water system
Destination surface water management area
Water system spatial boundaries
Water management area spatial boundaries
Unit of measure
Comments

<p>Subcategory 5f</p> <p><i>For explanatory notes on subcategory 5f metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf</p>
Data owner ID
Data provider ID
Name of State or Territory
Name of groundwater system
Name of groundwater management area
Water system spatial boundaries
Water management area spatial boundaries
Water access entitlement ID
Date water access entitlement issued
Irrigation network link to water access entitlement
Location of the extraction point
Purpose of water extracted
Unit of measure
Comments

Subcategory 5g <i>For explanatory notes on subcategory 5g metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf
Data owner ID
Data provider ID
Name of State or Territory
Name of groundwater system
Name of groundwater management area
Water system spatial boundaries
Water management area spatial boundaries
Purpose of water extracted
Unit of measure
Comments

<p>Subcategory 5h</p> <p><i>For explanatory notes on subcategory 5h metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat5-v1.pdf</p>
Data owner ID
Data provider ID
Origin State or Territory
Origin water system
Origin water management area
Destination State or Territory
Destination groundwater system
Destination groundwater management area
Water system spatial boundaries
Water management area spatial boundaries
Origin resource type
Destination resource type
Unit of measure
Comments

Metadata and contextual information requirements for category 6 — information about water rights, allocations and trades

Further information about the elements listed below, including how they are grouped together, the elements which are common to subcategories 6a, 6b, 6c, 6d, 6e, 6f and 6g, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategory 6a</p> <p><i>For explanatory notes on subcategory 6a metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf</p>
Data owner ID
Data provider ID
Name of State or Territory
Name of water system
Name of water resource plan area
Name of trading zone
Water access entitlement ID or irrigation right ID
Date water access entitlement or irrigation right issued
Water right type
Resource type
Reliability
New entitlement
Tradable inter-state
Tradable inter-region
Tradable intra-region
Quantity of water

<p>Subcategory 6b</p> <p><i>For explanatory notes on subcategory 6b metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf</i></p>
Data owner ID
Data provider ID
Name of State or Territory
Name of water system
Name of water resource plan area
Name of trading zone
Water access entitlement ID or irrigation right ID
Entitlement trade ID
Water right type
Resource type
Water right trade type
Reliability
Destination State or Territory
Destination water system
Destination water resource plan area
Destination trading zone
Quantity of water traded or leased
Gross sale or lease price
Net sale or lease price
Duration of lease
Date of trade application

Subcategory 6b

For explanatory notes on subcategory 6b metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf

Date trade application lodged at relevant authority

Date trade application approved

Date trade application lodged at register

Date of registration

Trade status

Environmental trade

Water traded as part of property sale

Trade involves a change in ownership

Critical needs purchase

<p>Subcategory 6c</p> <p><i>For explanatory notes on subcategory 6c metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf</i></p>
Data owner ID
Data provider ID
Name of State or Territory
Name of water system
Name of water resource plan area
Name of trading zone
Allocation trade ID
Resource type
Destination State or Territory
Destination water system
Destination water resource plan area
Destination trading zone
Quantity of water traded or leased
Gross sale or lease price
Net sale or lease price
Date of trade application
Date trade application lodged at relevant authority
Date trade application approved
Date trade application lodged at register
Date of registration
Trade status

Subcategory 6c

For explanatory notes on subcategory 6c metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf

Environmental trade

Trade involves a change in ownership

Critical needs purchase

Subcategory 6d <i>For explanatory notes on subcategory 6d metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf
Data owner ID
Data provider ID
Name of State or Territory
Name of water system
Name of water resource plan area
Name of trading zone
Date of announcement
Period of effect
Water right type
Resource type
Reliability
Enhancement announcement
Restriction announcement
Announced allocation
Carry over

Subcategory 6e

For explanatory notes on subcategory 6e metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf

Data owner ID

Data provider ID

Name of State or Territory

Name of water system

Name of water resource plan area

Name of trading zone

Storage permit ID

Date permit issued

Location of the dam

Total storage capacity

Subcategory 6f

For explanatory notes on subcategory 6f metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf

Data owner ID

Data provider ID

Name of State or Territory

Name of water system

Name of water resource plan area

Name of trading zone

Bore permit ID

Date permit issued

Location of the bore

Permitted depth of the bore

Maximum permissible extraction volume

Maximum permissible extraction rate

Other conditions of use

Subcategory 6g <i>For explanatory notes on subcategory 6g metadata and contextual information, go to:</i> http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat6-v1.pdf
Data owner ID
Data provider ID
Name of State or Territory
Name of water system
Name of water resource plan area
Name of trading zone
Watercourse self-extraction permit ID
Date permit issued
Location of the watercourse extraction point
Maximum permissible extraction volume
Maximum permissible extraction rate
Other conditions of use

For metadata and contextual information requirements for subcategories in category 7 (information about urban water management) see [*Urban Water Management Information Requirements*](#) at: <http://www.bom.gov.au/water/regulations/schedules>

Metadata and contextual information requirements for category 8 — water restrictions

Water use restriction level
Water use restriction commencement and termination dates
Description of water use restriction levels and where they apply, including definitions for each water restriction level; and water savings target applicable to each water restriction level
Geographic area in which the water restriction conditions apply, described so the area can be accurately mapped
Description of all water management areas — the name of the water management area and a description so that it can be accurately mapped
Other metadata and contextual information
Manuals or protocols that describe procedures used in measuring, managing or interpreting water information

Metadata and contextual information requirements for subcategories in category 9 — water quality information

Further information about the elements listed below, including how they are grouped together, the elements which are common to all subcategories, descriptions and examples can be found in the [explanatory notes](#)

<p>Subcategories 9a, 9c, 9d, 9e, 9f, 9g and 9h</p> <p><i>For explanatory notes on subcategories 9a, 9c–9g and 9h metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat9-v1.pdf</i></p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Time series ID
Time series description
Data point interpolation type
Sample ID
Sample description
Sample date and time
Sampling depth
Sample processing procedure

Subcategories 9a, 9c, 9d, 9e, 9f, 9g and 9h

For explanatory notes on subcategories 9a, 9c–9g and 9h metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat9-v1.pdf

Measurement number

Measurement date and time

Measurement status

Measurement unit

Measurement procedure

Measurement quality

Measurement comments

Watercourse name

<p>Subcategories 9b and 9ga</p> <p><i>For explanatory notes on subcategories 9b and 9ga metadata and contextual information, go to: http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat9-v1.pdf</i></p>
Data owner ID
Data provider ID
Site name
Site description
Site ID
Site position
Measuring point name
Measuring point description
Measuring point ID
Measuring point position
Time series ID
Time series description
Data point interpolation type
Sample ID
Sample description
Sample date and time
Sampling depth
Sample processing procedure
Measurement number
Measurement date and time
Measurement status

Subcategories 9b and 9ga

For explanatory notes on subcategories 9b and 9ga metadata and contextual information, go to:
http://www.bom.gov.au/water/regulations/schedules/document/Expl_notes_metadata_cat9-v1.pdf

Measurement unit

Measurement procedure

Measurement quality

Measurement comments

Bore pipe screen information

Metadata and contextual information requirements for category 11 — water information for flood warning purposes

Subcategory 11a
The vertical datum applicable to the observation
Time and date of the observation
Tables that enable the derivation of volumetric flow from water level or stage height — the complete historical sequence of rating tables, indicating the time span across which the rating should apply
Rating tables for the surface area and storage volume derivation of water storages – the complete historical sequence of rating tables relating water storage water level to reservoir surface area and storage volume, indicating the dead storage level and volume, and indicating the time span across which the rating should apply
Other metadata and contextual information
Manuals or protocols that describe procedures used in measuring, managing or interpreting water information

Subcategory 11b
Time and date of the observation
Tables that enable the derivation of volumetric flow from water level or stage height — the complete historical sequence of rating tables, indicating the time span across which the rating should apply
Rating tables for the surface area and storage volume derivation of water storages – the complete historical sequence of rating tables relating water storage water level to reservoir surface area and storage volume, indicating the dead storage level and volume, and indicating the time span across which the rating should apply
Other metadata and contextual information
Manuals or protocols that describe procedures used in measuring, managing or interpreting water information

Subcategory 11c
Specified time interval of the observation
Time and date of the observation
Other metadata and contextual information
Manuals or protocols that describe procedures used in measuring, managing or interpreting water information