

Australian Water Accounting Standard 1

Preparation and Presentation of General Purpose Water Accounting Reports



Australian Water Accounting Standard 1: *Preparation and Presentation of General Purpose Water Accounting Reports*
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Australian Water Accounting Standard 1: *Preparation and Presentation of General Purpose Water Accounting Reports* (AWAS 1) and associated illustrative water accounting reports were approved by the Water Accounting Standards Board on 29 May 2012.

Water Accounting Standards Board members:

- Michael RL Smith (Chairman)
- W Peter Day
- Denis W Flett
- Jayne M Godfrey

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Australian Water Accounting Standard 1 (AWAS 1) is published by the Water Accounting Standards Board, an independent advisory board of the Bureau of Meteorology.

Included as an appendix is a list of defined terms, implementation guidance and a basis for conclusions, which outlines the discussions and assumptions that informed the decisions the Board made while writing AWAS 1.

A group of four illustrative water accounting reports have also been prepared to demonstrate the application of AWAS 1 under four different scenarios. The illustrative water accounting reports are not static documents and will require regular updating as changes arise from new or amended AWAS.

For more information, visit our website: www.bom.gov.au/water/standards/wasb

Australian Water Accounting Standard 1

Preparation and Presentation of General Purpose
Water Accounting Reports



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AWAS 1 is set out in paragraphs 1–181 and the Appendix. All the paragraphs have equal authority. Paragraphs in **bold type** state the main principles.

Terms defined in the Appendix appear in *italics* in AWAS 1.

AWAS 1 should be read in the context of its objective and the Basis for Conclusions.

Objective of the Standard

1. This Standard prescribes the basis for preparing and presenting *general purpose water accounting reports*. It sets out requirements for the recognition, quantification, presentation and disclosure of items in a *general purpose water accounting report* to ensure comparability with:
 - a) the *general purpose water accounting reports* of the *water report entity* over time; and
 - b) the *general purpose water accounting reports* of other *water report entities*.

Scope

2. This Standard shall be applied in preparing and presenting *general purpose water accounting reports* for a *water report entity*.
3. In the absence of explicit guidance in this Standard, the Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports shall be applied in developing and applying *water accounting policies*.
4. *Water* that is in the terrestrial phase of the *water* cycle is within the scope of this Standard. *Water* in the marine or atmospheric phases of the *water* cycle is not within the scope of this Standard. The focus of *water* accounting is on *water* that is fit for purpose relative to the nature or objectives of the *water report entity*.
5. *Water* possesses more than one attribute that can be quantified; for example, volume, salinity and monetary value. The requirements in this Standard focus on volume as the quantification attribute.

General purpose water accounting reports

Objective

6. A *general purpose water accounting report* shall provide information useful to users of that report for making and evaluating decisions about the allocation of resources.
7. Decisions about the allocation of resources may include, for example, decisions about the management or trade of *water* and *water* rights or obligations over time, or the provision of *water*-related services. They may also include decisions about whether to provide funding to the management of a *water report entity*, or whether there is a need to build additional infrastructure to store the *water* of a *water report entity*. In many instances, *general purpose water accounting reports* will assist users' assessment of the accountability of management, and thereby are likely to inform users' decision-making.

Elements

8. The elements of a *general purpose water accounting report* are:
 - a) *water assets*;
 - b) *water liabilities*;
 - c) *net water assets*;
 - d) *changes in water assets*; and
 - e) *changes in water liabilities*.

Components

9. Except as indicated in paragraphs 10, 12 and 14, a *general purpose water accounting report* comprises:
 - a) a **Contextual Statement** (see paragraphs 56–61);
 - b) an **Accountability Statement** (see paragraphs 62–63);
 - c) a **Statement of Water Assets and Water Liabilities** (see paragraphs 64–106);
 - d) a **Statement of Changes in Water Assets and Water Liabilities** (see paragraphs 107–114);
 - e) a **Statement of Water Flows** (see paragraphs 115–127); and
 - f) **note disclosures** (see paragraphs 133–177).
10. **A Statement of Changes in Water Assets and Water Liabilities need not be presented for a *water report entity* if that entity has only flows of *water* and no changes in any of its *water assets* or *water liabilities* arising from accruals. In such circumstances, the fact that the Statement of Changes in Water Assets and Water Liabilities has not been presented because the *water report entity* has no changes in any of its *water assets* and *water liabilities* arising from accruals shall be disclosed.**
11. The Statement of Changes in Water Assets and Water Liabilities is prepared on an accruals basis and provides information on transactions, transformations and events that give rise to changes in *water assets* and *water liabilities* during the reporting period, irrespective of whether those transactions, transformations or events represent *water* flows. In contrast, the Statement of Water Flows provides information on transactions, transformations and events only when they give rise to *water* flows during the reporting period. Therefore, if a *water report entity* has only flows of *water* and no accruals, the Statement of Water Flows is, on its own, sufficient to provide users with information about all transactions, transformations and events that give rise to changes in *water assets* and *water liabilities* during the reporting period.
12. **A Statement of Water Flows need not be presented for a *water report entity* if that entity has no flows of *water* and the changes in its *water assets* or *water liabilities* arise only from accruals. In such circumstances, the fact that the Statement of Water Flows has not been presented because the *water report entity* has no flows of *water* shall be disclosed.**
13. If a *water report entity* has no flows of *water* and the changes in its *water assets* and *water liabilities* arise only from accruals, the Statement of Water Flows has no content. The Statement of Changes in Water Assets and Water Liabilities is, on its own, sufficient to provide users with information about transactions, transformations and events that give rise to changes in *water assets* and *water liabilities* during the reporting period.
14. **The Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows may be combined and presented as a single statement if doing so improves the understandability of the *general purpose water accounting report* without undermining the fair presentation of that report.**
15. The presentation of a combined statement may, for example, improve the understandability of the *general purpose water accounting report* when:
 - a) the *water report entity* has immaterial accruals relative to flows; or
 - b) the *water assets* of the *water report entity* are primarily rights to *water*, resulting in immaterial *water* flows.

General features

Fair presentation

16. **General purpose water accounting reports shall present fairly the *water assets* and *water liabilities*, the *changes in water assets* and *changes in water liabilities*, and the *water flows* of a *water report entity*. Fair presentation requires the faithful representation of the effects of transactions, transformations and events in accordance with the definitions and recognition criteria for *water assets*, *water liabilities*, *changes in water assets* and *changes in water liabilities* set out in this Standard. The application of this Standard results in a *general purpose water accounting report* that achieves a fair presentation.**
17. **Information provided in a *general purpose water accounting report* is a faithful representation of the effects of transactions, transformations and events when it is complete, neutral and free from material error.**
18. Information in *general purpose water accounting reports* is complete if it includes all information that is necessary for faithful representation of the transactions, transformations and events that it purports to represent. Information that is incomplete, omitted or is false and misleading is not useful for decision-making.
19. Information in *general purpose water accounting reports* is neutral if it is free from bias. Information in *general purpose water accounting reports* is not neutral if its selection, disclosure or presentation is intended to influence the decision-making or judgement of users of those reports to achieve a particular result or outcome.
20. Information is material if its omission from, or misstatement in, a *general purpose water accounting report* could influence the decisions of users of that report (see paragraphs 23–27).

Accrual basis of water accounting

21. **With the exception of *water flow information*, *general purpose water accounting reports* shall be prepared using the accrual basis of water accounting.**
22. Applying the accrual basis of water accounting means that the effects of transactions, transformations and events are recognised when the decisions or commitments that give rise to them occur. This may not be the time at which *water* is physically transacted, transformed or subject to an event. The accrual basis of *water* accounting ensures that transactions, transformations and events are recorded in the Statement of Water Assets and Water Liabilities and the Statement of Changes in Water Assets and Water Liabilities in the *reporting periods* to which they relate. For example, a present *legal obligation* to provide *water* from a particular catchment area would be recognised at the *reporting date* as a *water liability* of the *water report entity*, even though *water* has not been physically transferred by the end of the *reporting period*. *General purpose water accounting reports* prepared on an accrual basis inform users not only of past transactions, transformations or events involving the physical transfer or transformation of *water*, but also of present obligations to transfer or transform *water* in the future and of rights to *water* to be transferred to the *water report entity* in the future. Therefore, they provide information about past transactions, transformations and events that is useful to users for making and evaluating decisions about the allocation of resources.

Materiality

- 23. Materiality shall be applied in preparing and presenting *general purpose water accounting reports*. Information is material if its omission from, or misstatement in, a *general purpose water accounting report* could influence the decisions of users of that report.**
24. Materiality influences whether an item or an aggregate of items is required to be recognised, quantified, presented or disclosed in accordance with the requirements of this Standard. When an item or an aggregate of items is not material, application of materiality does not mean that those items would not be recognised, quantified, presented or disclosed, but rather that they would not be required to be recognised, quantified, presented or disclosed in accordance with the requirements of this Standard.
25. It is not possible to specify a uniform quantitative threshold at which information becomes material. Nevertheless, materiality must be taken into account because material omissions from, or misstatements in, *general purpose water accounting reports* will render the information incomplete, biased or not free from error.
26. In some cases, the nature of information alone is sufficient to determine its materiality. For example, environmental *water* flows from a particular source may be relatively small in volume, but may be critical for maintaining ecosystem health, and therefore information about such *water* flows may be relevant to decision-making. In other cases, both the nature and volume of an item are important to assessing materiality. For example, if the volume of minor catchment storages within a particular area is relatively small, information about those storages may not be relevant. However, when minor catchment storages capture a significant portion of runoff, information about those storages may be relevant to the users of the *general purpose water accounting report*. Materiality is therefore a matter of judgement influenced by the characteristics of the *water report entity* and the information needs of users.
27. In addition to guiding the application of the recognition, quantification, presentation and disclosure requirements, materiality guides the margin of error that is acceptable in the volume attributed to an item or an aggregate of items and the degree of precision required in estimating the volume of an item or an aggregate of items.

Offsetting

- 28. A *general purpose water accounting report* shall present:**
- a) *water assets separately from water liabilities;***
 - b) *changes in water assets separately from changes in water liabilities; and***
 - c) *water inflows separately from water outflows.***
29. Offsetting the items in paragraph 28 detracts from the ability of users to understand the transactions, transformations and events that have occurred in the *reporting period*. Therefore, this Standard does not permit offsetting of items within the *water accounting statements*.

Frequency of reporting

- 30. *General purpose water accounting reports* shall be prepared for a *water report entity* no less frequently than annually.**

Comparative information

31. **Comparative information shall be provided in *general purpose water accounting reports* to enable users to compare the nature and volumes of *water assets* and *water liabilities* of a *water report entity*, and changes in those *water assets* and *water liabilities*, over time.**
32. **Except when this Standard permits or requires otherwise, comparative information shall be provided for the immediately preceding *reporting period* for all volumes reported in the current *reporting period's general purpose water accounting report*. Comparative information for narrative and descriptive information shall be provided when it is relevant to an understanding of the current *reporting period's general purpose water accounting report*.**
33. This Standard requires, as a minimum, comparative information for the immediately preceding *reporting period* to be provided for all volumes reported in the current *reporting period's general purpose water accounting report*. Comparative information for earlier *reporting periods* is also provided when it is relevant to an understanding of the current *reporting period's general purpose water accounting report*.
34. In some cases, narrative information provided in the *general purpose water accounting report* for a prior *reporting period* continues to be relevant in the current *reporting period*. For example, information about temporarily contaminated *water* at the end of the immediately preceding *reporting period* coupled with information about the treatments or events altering the condition of that *water* during the current *reporting period* may be relevant to an understanding of the current *reporting period's general purpose water accounting report*.
35. **When, in accordance with paragraph 40, changes are made to the presentation or classification of an item in a *general purpose water accounting report*, the comparative information presented for each prior *reporting period* shall be restated as if the revised presentation or classification had always applied, unless such restatement is impracticable.**
36. Ensuring the inter-period comparability of information assists users in making and evaluating decisions about the allocation of resources. Therefore, when changes are made to the presentation or classification of an item, it is important that comparative information is restated as if the revised presentation or classification had always applied. However, in some circumstances it may be impracticable to restate some or all of the comparative information to achieve inter-period comparability. This may be the case, for example, when the collection of prior period data was incomplete so that the comparative information cannot be assembled. When this is the case, information is disclosed in the notes to provide users with information that is relevant to their decision-making.
37. **Comparative information shall be provided in the first *general purpose water accounting report* prepared for a *water report entity*, unless it is impracticable to do so.**
38. **If there is a change in a *water report entity's reporting date*, comparative information shall be provided for the immediately preceding *reporting period*.**
39. The annual *reporting date* for a *water report entity* may, for example, change from 30 June to 31 December. Following the change in *reporting date*, a *general purpose water accounting report* may be prepared for the six-month *reporting period* ended 31 December. In accordance with paragraph 30, a *general purpose water accounting report* is required to include comparative information for the immediately preceding *reporting period* which is for the year ended 30 June. This does not preclude presenting additional comparative information when it is relevant to an understanding of the current *reporting period's general purpose water accounting report*.

Consistency of presentation

40. **The presentation and classification of items within *general purpose water accounting reports* shall be retained from one *reporting period* to the next, unless a change results in the *general purpose water accounting report* providing more useful information to users of that report.**

41. Consistency in the presentation and classification of items from one *reporting period* to the next enhances the inter-period comparability of information. However, in certain circumstances, a change to the presentation or classification of an item may be appropriate because it results in more useful information being provided to users of the *general purpose water accounting report*.
42. When changes are made to the presentation or classification of an item in a *general purpose water accounting report*, comparative information is restated in accordance with paragraph 35.

Error corrections

43. Prior period errors shall be corrected in the first general purpose water accounting report issued after their discovery by:

- a) **restating the comparative information presented for the prior reporting period(s) to correct the errors in the reporting period in which they occurred; or**
 - b) **if the error occurred before the earliest prior reporting period presented, restating the opening balances of water assets and water liabilities for the earliest prior reporting period presented to correct those balances for the errors.**
44. Errors can arise in the recognition, quantification, presentation or disclosure of elements of a *general purpose water accounting report*. *General purpose water accounting reports* do not comply with Australian Water Accounting Standards if they contain errors. Current *reporting period* errors discovered during the *reporting period* are corrected before the *general purpose water accounting report* is issued. However, errors are sometimes not discovered until a subsequent *reporting period*. These *prior period errors* are corrected in the comparative information presented in the *general purpose water accounting report* for that subsequent *reporting period*.
 45. *Prior period errors* are omissions from, or misstatements in, the *water report entity's general purpose water accounting report* for one or more prior *reporting periods* arising from a failure to use, or misuse of, reliable information that was either available when the *general purpose water accounting reports* for those *reporting periods* were issued, or could reasonably have been expected to be obtained and reflected in those reports. For example, the volume of an item included in the Statement of Water Assets and Water Liabilities of the prior year may have been misstated. In accordance with paragraph 43, this error is required to be corrected by adjusting the comparative information in the Statement of Water Assets and Water Liabilities in the *general purpose water accounting report* for the current *reporting period*.
 46. Changes to volume estimates due to improved quantification approaches are not *prior period errors*. For example, as a result of developing a better understanding of the *water system*, the management of a *water report entity* may refine the models used to estimate the volumes of various items recognised in the *water accounting statements*. The volumes recognised in the prior *reporting period* do not represent *prior period errors* because those estimates were based on the best information available when the prior *reporting period general purpose water accounting report* was issued. While the refined models could be used to re-estimate the prior *reporting period* volumes, the comparative information in the *general purpose water accounting report* for the current *reporting period* is not restated.

Events after the reporting period

47. The volumes recognised in the water accounting statements shall be adjusted to reflect adjusting events after the end of the reporting period.

48. The following are examples of *adjusting events after the end of the reporting period* that would require adjustments to be made to the volumes recognised in the *water accounting statements*, or to recognise items that were not previously recognised:
 - a) the receipt of information after the end of the *reporting period* that provides evidence of the volumes of *water assets* or *water liabilities* as at the *reporting date*;

- b) the receipt of information after the end of the *reporting period* that provides evidence of the volumes of *changes in water assets* or *changes in water liabilities* during the *reporting period*;
- c) the receipt of information after the end of the *reporting period* that provides evidence of the volumes of *water flows* during the *reporting period*; or
- d) the discovery of errors that show the *water accounting statements* are incorrect.

49. The volumes recognised in the *water accounting statements* shall not be adjusted to reflect *non-adjusting events after the end of the reporting period*.

50. An example of a *non-adjusting event after the end of the reporting period* is a change made to a *water resource management instrument* such as a *water sharing plan* after the end of the *reporting period*. Because the change to the instrument is made after the reporting date, it does not relate to conditions that existed at the end of the *reporting period*. Accordingly, no adjustments are made to the volumes recognised in the *water accounting statements*.

Quantification

51. Except when this Standard permits or requires otherwise, an element recognised in a *general purpose water accounting report* shall be presented using:

- a) **volume as the quantification attribute; and**
- b) **litres as the unit of account.**

52. Elements of *general purpose water accounting reports* often possess more than one attribute that can be quantified. Quantifiable attributes of *water assets*, *water liabilities*, *net water assets* and changes in balances of *water assets* and *water liabilities* include, for example, volume, salinity and monetary value.
53. An attribute of an element may be quantified using different units of account. For example, the volume of *water assets* may be quantified in litres, cubic metres or gallons. A *water quality* attribute such as the salinity of *water assets* may be expressed in units of account such as milligrams of dissolved solid per litre or microSiemens per centimetre ($\mu\text{S}/\text{cm}$) at 25 °C.
54. This Standard requires an element recognised in a *general purpose water accounting report* to be presented using volume as the quantification attribute and litres as the unit of account. Information about other attributes of an element should also be disclosed when it is relevant to an understanding of the *general purpose water accounting report*.

Structure and content of general purpose water accounting reports

55. Paragraph 9 outlines the components of a *general purpose water accounting report*. Paragraphs 56–177 prescribe the information to be provided in a *general purpose water accounting report*.

Contextual Statement

56. The Contextual Statement shall provide information that assists users of *general purpose water accounting reports* to understand the physical and administrative aspects of the *water report entity*. It shall contain contextual information about the *water assets* and *water liabilities* of the *water report entity*, including any conditions, or variations in conditions, that have an impact on the management of those *water assets* and *water liabilities*.

57. Contextual information about the *water assets* and *water liabilities* of the *water report entity* may, for example, include details of the geographical location of the *water* and actual storage volumes in comparison to total possible storage volumes.

58. Conditions that have an impact on the management of *water assets* and *water liabilities* may, for example, include:
- a) the climatic conditions experienced before and during the *reporting period*;
 - b) externally-imposed requirements related to managing the *water assets* and *water liabilities* of the *water report entity*, such as those contained in *water resource management instruments*;
 - c) significant conditions included in, or changes to, institutional or administrative arrangements relevant to the *water report entity*. This would include significant conditions included in, or changes to, *water resource management instruments* such as *water sharing plans*; and
 - d) policies and practices for managing *water assets* and *water liabilities* that have been adopted by the management of the *water report entity*.
59. Externally-imposed requirements related to managing the *water assets* and *water liabilities* of a *water report entity* will vary according to the nature of, and the jurisdictional administrative arrangements applying to, the *water report entity*.
60. Best practice for managing *water assets* and *water liabilities* is evolving. The application of paragraph 56 involves including information in the Contextual Statement about those practices adopted by the management of the *water report entity* that are most relevant to understanding the management of the *water assets* and *water liabilities*.
61. Depending on the nature of the *water report entity*, information may need to be disclosed in the Contextual Statement across multiple distinct areas such as:
- a) *water sharing* and extraction limitations;
 - b) *water utility service* and operations;
 - c) trading of *water rights* and other claims to *water*;
 - d) environmental *water stewardship*;
 - e) *water planning* and strategic initiatives; and
 - f) future outlook for the *water report entity*.

Accountability Statement

- 62. The Accountability Statement shall provide information that assists users of a *general purpose water accounting report* to assess whether the report has been prepared in accordance with Australian Water Accounting Standards.**
- 63. In the event that the *general purpose water accounting report* has not been prepared in accordance with Australian Water Accounting Standards, the following information shall be disclosed in the Accountability Statement:**
- a) **the nature of the non-compliance;**
 - b) **the reason(s) for non-compliance; and**
 - c) **reference to other disclosures in the *general purpose water accounting report* that provide further information relevant to the non-compliance.**

Statement of Water Assets and Water Liabilities

- 64. The Statement of Water Assets and Water Liabilities shall provide information that assists users of a *general purpose water accounting report* to understand the nature and volumes of the *water assets* and *water liabilities* of a *water report entity*.**

Information to be presented

- 65. The Statement of Water Assets and Water Liabilities shall contain line items that present the following volumes as at the *reporting date*:**
- a) ***water assets***;
 - b) ***water liabilities***; and
 - c) ***net water assets***.
- 66. Additional sub-classifications of a line item set out in paragraph 65 shall be presented in the Statement of Water Assets and Water Liabilities when the volume, nature or function of the sub-classified item is such that separate presentation is relevant to an understanding of the *water report entity's water assets or water liabilities*.**
67. This Standard does not prescribe the order or format in which items are presented in the Statement of Water Assets and Water Liabilities. Additional sub-classification of the items in paragraph 65 is presented when the volumes, nature or function of a sub-classified item is such that its separate presentation is relevant to an understanding of the *water report entity's water assets or water liabilities*. The requirements and guidance in paragraphs 23–27 on materiality are considered in making this assessment.
68. For example, when a *water report entity* covers more than one *groundwater* management area, it may be appropriate to present disaggregated *groundwater* storage information for each of those management areas if the volumes in each area are such that their separate presentation is relevant to an understanding of the *water report entity's water assets*.
69. Different quantification approaches may be used for different types of *water assets*. This does not, of itself, provide a basis for presenting additional sub-classifications of a line item in the Statement of Water Assets and Water Liabilities. However, when those quantification approaches give rise to different levels of quantification accuracy for the *water assets* comprising the line item, information should be disclosed in the notes in accordance with paragraphs 147–149.
70. For example, the approaches used to quantify evaporation may differ depending on where the evaporation occurs. In some cases, evaporation volumes may be derived from measured data. In other cases, evaporation volumes may be estimated using modelling techniques. To the extent that these quantification approaches give rise to different levels of quantification accuracy, information about these different quantification approaches is disclosed in the notes.

Recognition criteria

Water assets

- 71. An item that meets the definition of a *water asset* shall be recognised in the Statement of Water Assets and Water Liabilities only when:**
- a) **it is probable that future benefits associated with the item will be derived by the *water report entity* or stakeholders of the *water report entity*; and**
 - b) **the item's volume can be quantified with representational faithfulness (see paragraphs 17–20).**
72. The future benefits embodied in a *water asset* may be derived in several ways. For example, a *water asset* may be:
- a) used singly or in combination with other resources or *water assets*;
 - b) exchanged for other *water assets* or sold;
 - c) used to settle a *water liability* or other obligation; or
 - d) distributed to stakeholders of the *water report entity*.

73. Future benefits derived by the *water report entity* are contributions to achieving the economic, environmental, social or other objectives of the *water report entity*. Future benefits that achieve economic objectives of a *water report entity* may be in the form of inflows of economic resources, or prevented or reduced outflows of economic resources. For example, *water* extracted and stored by an organisation which bottles spring *water* that is sold may provide future benefits in the form of sales proceeds. Future benefits that achieve environmental objectives may be in the form of environmental improvements or the prevention or reduction of environmental degradation. For example, *water* behind dam walls may enable an environmental *water* manager to achieve environmental objectives through preserving key ecological assets such as threatened species. *Water* used to achieve social objectives of a *water report entity* may produce future benefits in the form of increased social benefits, or the prevention of the loss of social benefits. For example, a municipal council in a bushfire-prone area could fill and maintain several *water* ponds or lakes on crown land that are used for recreational or fire-fighting purposes.
74. Future benefits derived by stakeholders of a *water report entity* are received, either directly or indirectly, by the environment, individuals, organisations or communities such as townships. The benefits can include economic, environmental and social benefits, similar to those described in paragraph 73.
75. For *water* to meet the definition of a *water asset*, it must be of sufficient quality to enable the *water report entity* or its stakeholders to derive the future benefits expected from the *water*. For example, a *water report entity* that is a mine may hold contaminated *water* and use state-of-the-art robotic technology for all underground mining operations. Although the contaminated *water* is harmful to humans, it may not be harmful to the mine's machinery. As a result, the contaminated *water* could be used for dust suppression or cooling machinery underground. In this circumstance, the quality of the contaminated *water* is sufficient to enable the mine to derive future benefits and therefore would be recognised as a *water asset* provided it meets the recognition criteria in paragraph 71. In contrast, the contaminated *water* could not be used for dust suppression or cooling if mineworkers were in close proximity as this would be hazardous to human health. In this case, the quality of the contaminated *water* would not be sufficient to enable the mine to derive any future benefits and the *water* would therefore not be recognised as a *water asset*.
76. *Water* that meets the definition of a *water asset* and is expected to satisfy the recognition criteria in paragraph 71 includes *water* in storages behind dams and *water* within lakes and other natural surface features. It also includes the extractable portion of *groundwater*, *dead storage water* and *conveyance water*.
77. The total volume of *groundwater* is often not regarded as a *water asset* because a significant portion of the *groundwater* is non-extractable due to physical or regulatory limitations. However, the portion of the *groundwater* that is extractable provides future benefits because it can be accessed and taken or delivered. Provided the extractable volume can be quantified with representational faithfulness, it is recognised as a *water asset* in the Statement of Water Assets and Water Liabilities.
78. *Dead storage water* provides future benefits to the *water report entity* for the following reasons:
- a) its presence means the *surface water* above the *dead storage water* can be accessed;
 - b) if the storage level falls below the elevation of the lowest constructed outlet, the *dead storage water* could be accessed and, with some effort and investment, taken or delivered; and
 - c) if the *dead storage water* was not there it would need to be replaced for the storage to function as intended. Consequently, there is a benefit in not having to replace it with other *water assets*.

Therefore, provided its volume can be quantified with representational faithfulness, *dead storage water* is recognised as a *water asset* in the Statement of Water Assets and Water Liabilities.

79. *Conveyance water* provides future benefits for the following reasons:
- a) it enables the delivery of *water* in regulated rivers and utility supply networks by covering the loss of *water* in the delivery process;

- b) if necessary, it could be accessed and taken or delivered; and
- c) if *conveyance water* was not part of a delivery system it would need to be replaced for the delivery system to function as intended. Consequently there is a benefit in not having to replace it with other *water assets*.

Therefore, provided its volume can be quantified with representational faithfulness, *conveyance water* is recognised as a *water asset* in the Statement of Water Assets and Water Liabilities.

- 80. The definition of a *water asset* includes rights or other claims to *water*. For a right or other claim to *water* to meet the definition a *water asset*, it must, for the purpose of this Standard, represent a present right or other present claim to *water*.
- 81. An example of a present right or other present claim to *water* is a *water allocation*. An allocation determination and announcement, which is made in accordance with a *water resource management instrument*, gives rise to a legal right to access *water*. A present right to *water* would exist at the *reporting date* for any undelivered volumes relating to current or past *reporting period water allocations*. Provided its volume can be quantified with representational faithfulness, the present right as at the *reporting date* is recognised as a *water asset* in the Statement of Water Assets and Water Liabilities. Importantly, it is only the undelivered volumes relating to current or past *reporting period water allocations* that give rise to a present right. A right to *water* under an allocation relating to future *reporting periods* is not a present right but rather a future water right.
- 82. A *water resource management instrument* may specify a monthly minimum flow of *water* from one *water report entity* to another to the extent that there is available *water*. These arrangements are often referred to as ongoing *water commitments*. Typically, an inability to deliver *water* in a particular month due to insufficient *water* does not result in a carryover of the undelivered amount. When this is the case, the receiving *water report entity* does not have a present right at the *reporting date* for the undelivered volumes. However, a present right would exist at the *reporting date* for any undelivered volumes relating to past months for which sufficient *water* was available to meet the minimum flow requirements. Provided the undelivered volume meets the other necessary aspects of the *water asset* definition and can be quantified with representational faithfulness, it is recognised as a *water asset* in the Statement of Water Assets and Water Liabilities. Importantly, it is only the undelivered volumes relating to past months for which there was sufficient *water* available to meet the minimum flow requirements that give rise to a present right at the *reporting date*. The right to *water* in future *reporting periods* under an ongoing *water commitment* is not a present right.

Future water rights

- 83. A future *water right* shall not be recognised in the Statement of Water Assets and Water Liabilities.**
- 84. A future *water right* is a right or other claim to *water* that relates to future *reporting periods*. A future *water right* is not, at the *reporting date*, a present right or other present claim to *water* of the *water report entity* and is therefore not recognised as a *water asset* in the Statement of Water Assets and Water Liabilities.
- 85. An example of a future *water right* is a *water allocation* that grants the right to access a volume of *water* in a future *reporting period*. This is not a present right to *water* because it does not represent undelivered volumes relating to current or past *reporting period water allocations*. It is therefore not recognised as a *water asset* at the *reporting date*. However, information about future *water rights* expected to be realised within 12 months of the *reporting date* is disclosed in the notes in accordance with paragraphs 151–157.
- 86. A *water resource management instrument* may specify a minimum flow of *water* from one *water report entity* to another to the extent there is sufficient *water* to meet that minimum flow. These arrangements are often referred to as ongoing *water commitments*. The expected future delivery of *water* that relates to the *water report entity's* entitlement to *water* in a future *reporting period* is not, at the *reporting date*, a present right or other present claim to *water* because it does not represent

undelivered volumes relating to the current or past *reporting periods*. It is therefore not recognised as a *water asset* at the *reporting date*. However, information about future *water* rights expected to be realised within 12 months of the *reporting date* is disclosed in the notes in accordance with paragraphs 151–157.

Contingent water assets

- 87. A contingent water asset shall not be recognised in the Statement of Water Assets and Water Liabilities.**
88. A *contingent water asset* is a possible *water asset* that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the *water report entity*.
89. The total volume of *groundwater* is often not regarded as a *water asset* because a significant portion of the *groundwater* is non-extractable due to physical or regulatory limitations. The non-extractable portion of the *groundwater* is a *contingent water asset* because it is possible that a change in circumstances, such as legislative or regulatory changes that alter the extractive limits would result in further portions of the *groundwater* becoming available for extraction.
90. A *water* resource management instrument may specify a minimum flow of *water* from one *water report entity* to another to the extent there is sufficient *water* to meet that minimum flow. These arrangements are often referred to as ongoing *water* commitments. A right to receive *water* in the future under an ongoing *water* commitment is a *contingent water asset* because it is possible that *water* will be received in the future to the extent it is available to be delivered.
91. *Contingent water assets* are not recognised in the Statement of Water Assets and Water Liabilities because they satisfy neither the definition of a *water asset* nor the recognition criteria in paragraph 71. However, information about *contingent water assets* is disclosed in accordance with paragraphs 158–160.

Water liabilities

- 92. An item that meets the definition of a water liability shall be recognised in the Statement of Water Assets and Water Liabilities only when:**
- a) **it is probable that the present obligation will result in a decrease in the *water report entity's water assets* or an increase in another *water liability* when the obligation is discharged; and**
 - b) **the item's volume can be quantified with representational faithfulness (see paragraphs 17–20).**
93. An essential characteristic of a *water liability* is that there exists a present obligation. An obligation is a duty or responsibility to act or perform in a certain way. An obligation can be a *legal obligation* or a *constructive obligation*.
94. A past event that leads to a present obligation is called an *obligating event*. For an event to be an *obligating event*, it is necessary that the management of the *water report entity* has no realistic alternative but to settle the obligation created by the event. This will be the case only when the event gives rise to:
- a) a *legal obligation*; or
 - b) a *constructive obligation* because the past event, which may be an action of the management of the *water report entity*, has created a valid expectation by other parties that the obligation will be discharged.

95. An example of a present obligation is *unused allocation*. An allocation determination and announcement, which is made in accordance with a *water* resource management instrument, represents an *obligating event* and gives rise to a *legal obligation* for *water* to be taken or delivered. Provided its volume can be quantified with representational faithfulness, *unused allocation* as at the *reporting date* is recognised as a *water liability* in the Statement of Water Assets and Water Liabilities.
96. A *water* resource management instrument may specify a monthly minimum flow of *water* from one *water report entity* to another to the extent that there is available *water*. These arrangements are often referred to as ongoing *water* commitments. Typically, an inability to deliver *water* in a particular month due to insufficient *water* does not result in a carryover of the undelivered volume. When this is the case, the providing *water report entity* does not have a present obligation at the *reporting date* for the undelivered volumes. However, a present obligation would exist at the *reporting date* for any undelivered volumes relating to past months for which sufficient *water* was available to meet the minimum flow requirements. In such circumstances, the *obligating event* is the availability of *water* to meet the minimum flow requirements for a particular month. Provided the undelivered volume meets the other necessary aspects of the *water liability* definition and can be quantified with representational faithfulness, it is recognised as a *water liability* in the Statement of Water Assets and Water Liabilities. Importantly, it is only the undelivered volumes relating to past months for which there was sufficient *water* available to meet the minimum flow requirements that give rise to a present obligation at the *reporting date*. The requirement to deliver *water* in future *reporting periods* under an ongoing *water* commitment is not a present obligation but rather a *future water commitment*.
97. A *constructive obligation* may arise, for example, when the management of a *water report entity* has indicated to other parties that a certain volume of *water* will be returned to the environment each *reporting period* and in doing so has created a valid expectation on the part of those parties that the *water* will be returned if sufficient *water* is available. A present obligation exists at the *reporting date* for any *water* that is yet to be returned to the environment in accordance with management's indication. Provided the volume yet to be delivered for the current *reporting period* meets the other necessary aspects of the *water liability* definition and can be quantified with representational faithfulness, it is recognised as a *water liability* in the Statement of Water Assets and Water Liabilities. Importantly, it is only the *water* that is expected to be delivered in accordance with management's indication that relates to the current or past *reporting periods* that gives rise to a present obligation at the *reporting date*. A decision to return *water* in future *reporting periods* is not a present obligation but rather a *future water commitment*.

Future water commitment

- 98. A future water commitment shall not be recognised in the Statement of Water Assets and Water Liabilities.**
99. *Future water commitments* are expected future demands on *water* influenced by the availability and management of the *water assets* and *water liabilities* of a *water report entity*. They may arise as a result of externally-imposed requirements or best practice for managing *water assets* and *water liabilities*. *Future water commitments* are not, at the *reporting date*, present obligations of the *water report entity* and are therefore not recognised as *water liabilities* in the Statement of Water Assets and Water Liabilities.
100. Expected future *water* allocations are not, at the *reporting date*, present obligations of a *water report entity*. Rather, they represent expected future demands on *water* influenced by the availability and the management of the *water assets* and *water liabilities* of the *water report entity*. They are therefore not recognised as *water liabilities* at the *reporting date*. However, information about *future water commitments* expected to be settled within 12 months of the *reporting date* is disclosed in the notes in accordance with paragraphs 151–157.

101. Similarly, the expected future delivery of *water* to a wetland is not, at the *reporting date*, a present obligation of the *water report entity*, unless it represents, at the *reporting date*, an outstanding delivery of *water* under a *water* resource management instrument for which all the criteria for delivery, including the due date for delivery and the availability of *water*, have passed or been met.

Contingent water liabilities

102. A contingent water liability shall not be recognised in the Statement of Water Assets and Water Liabilities.

103. A *contingent water liability* is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the *water report entity*.

104. A *water* resource management instrument may specify a monthly minimum flow of *water* from one *water report entity* to another to the extent there is available *water*. These arrangements are often referred to as ongoing *water* commitments. An inability to deliver *water* in a particular month due to insufficient *water* does not generally result in a carryover of the undelivered amount. The requirement to deliver *water* in future *reporting periods* under an ongoing *water* commitment is a *contingent water liability* because the delivery of *water* is dependent on sufficient *water* being available in a given future month.

105. *Contingent water liabilities* are not recognised in the Statement of Water Assets and Water Liabilities because they satisfy neither the definition of a *water liability* nor the recognition criteria in paragraph 92. However, information about *contingent water liabilities* is disclosed in accordance with paragraphs 158–160.

106. A *contingent water liability* may also represent a *future water commitment*. To the extent that a *contingent water liability* is also a *future water commitment* expected to be settled within 12 months of the *reporting date*, information about that *future water commitment* is disclosed in accordance with paragraphs 151–157.

Statement of Changes in Water Assets and Water Liabilities

107. The Statement of Changes in Water Assets and Water Liabilities shall contain information that assists users of a general purpose water accounting report to understand changes in the volumes and nature of the water report entity's net water assets during the reporting period.

108. The Statement of Changes in Water Assets and Water Liabilities provides information on transactions, transformations and events that give rise to *changes in water assets* or *changes in water liabilities*, irrespective of whether those transactions, transformations or events represent *water* flows. For example, *unused allocation* represents volumes of *water* that a *water report entity* is obliged to make available to be taken and delivered at the *reporting date* as a consequence of an allocation determination and announcement before the end of the *reporting period* under a *water* sharing plan. The *unused allocation* is recognised as a *water liability* at the *reporting date*. The balance of the *unused allocation* liability changes from one *reporting period* to the next as a result of the following events:

- a) it is increased as a result of allocation determinations and announcements made during a *reporting period*;
- b) it is decreased as a result of the physical outflow of *water* to settle allocations; and
- c) other events such as evaporation adjustments applied to *unused allocation* in accordance with a *water* sharing plan.

The Statement of Changes in Water Assets and Water Liabilities reflects the impact of each of the events identified in paragraph 108 (a)–(c).

Information to be presented

109. The Statement of Changes in Water Assets and Water Liabilities shall contain line items that present the following volumes for the *reporting period*:

- a) *water asset* increases;
- b) *water asset* decreases;
- c) *water liability* increases;
- d) *water liability* decreases; and
- e) *change in net water assets*.

110. Additional sub-classifications of a line item set out in paragraph 109 shall be presented in the Statement of Changes in Water Assets and Water Liabilities when the volume, nature or function of the sub-classified item is such that separate presentation is relevant to understanding the changes in the *water report entity's net water assets* during the *reporting period*.

111. This Standard does not prescribe the order or format in which items are presented in the Statement of Changes in Water Assets and Water Liabilities. Additional sub-classifications of the items in paragraph 109 are presented when the volume, nature or function of a sub-item is such that its separate presentation is relevant to understanding the changes in the *water report entity's net water assets* during the *reporting period*. The requirements and guidance in paragraphs 23–27 on materiality are considered in making this assessment.

112. For example, when a *water report entity* experiences significant volumes of evaporation relative to other forms of *water asset* decreases, it may be appropriate to disaggregate *water asset* decreases to present separately the volumes attributable to evaporation.

Recognition criteria

113. An item that meets the definition of a *change in a water asset* or a *change in a water liability* shall be recognised in the Statement of Changes in Water Assets and Water Liabilities only when:

- a) **it is probable that there has been a *change in a water asset* or a *change in a water liability*;**
- b) **the *water asset* or *water liability* that has increased or decreased is recognised in the Statement of Water Assets and Water Liabilities; and**
- c) **the volume of change in the *water asset* or *water liability* can be quantified with representational faithfulness (see paragraphs 23–27).**

114. When there is an unexplained change in *water assets* and *water liabilities* during the *reporting period*, this volume is presented in the Statement of Changes in Water Assets and Water Liabilities as an unaccounted-for difference.

Statement of Water Flows

115. The Statement of Water Flows shall contain information that assists users of a *general purpose water accounting report* to understand the nature and volumes of *water flows* experienced by the *water report entity* during the *reporting period*.

116. The Statement of Water Flows provides information on transactions, transformations and events that give rise to *water flows* during the *reporting period*. For example, in the case of *water liabilities* arising from *unused allocation*, the Statement of Water Flows:

- a) includes the effects of decreases in *water liabilities* resulting from outflows of *water* to settle announced allocations; and
- b) excludes the effects of allocation determinations and announcements made during the *reporting period* that remain undelivered at the *reporting date*. This is because they have not given rise to a *water flow* during the *reporting period*.

Information to be presented

117. The Statement of Water Flows shall include line items that present the following volumes for the *reporting period*:

- a) ***water inflows***;
- b) ***water outflows***;
- c) ***change in water storage***;
- d) ***opening water storage***; and
- e) ***closing water storage***.

118. Additional sub-classifications of a line item set out in paragraph 117 shall be presented in the Statement of Water Flows when the volume, nature or function of the sub-classified item is such that separate presentation is relevant to understanding the *water flows* of the *water report entity* during the *reporting period*.

119. This Standard does not prescribe the order or format in which items are presented in the Statement of Water Flows. Additional sub-classifications of the items in paragraph 117 are presented when the volume, nature or function of a sub-item is such that its separate presentation is relevant to understanding the *water flows* of the *water report entity* during the *reporting period*. The requirements and guidance in paragraphs 23–27 on materiality are considered in making this assessment.

120. For example, when a *water report entity* has significant volumes of spills relative to other forms of *water outflows*, it may be appropriate to disaggregate *water outflows* to present separately the volumes attributable to spills.

121. Because the Statement of Water Flows provides information about the *water flows* of a *water report entity*, the *water storages* referred to in that Statement relate only to *water assets* either held or managed by the *water report entity*. They do not include *water assets* in the nature of *water rights* for which the *water* has not yet been taken or delivered.

122. When there is an unexplained change in the volume of *water assets* during the *reporting period*, this volume is presented in the Statement of Water Flows as an unaccounted-for difference.

123. When the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows are combined and presented as a single statement:

- a) **that Statement shall be titled the Statement of Changes in Water Assets and Water Liabilities**;
- b) **the fact that the statements have been combined shall be disclosed as a significant *water accounting policy* together with an explanation of why such presentation improves the understandability of the *general purpose water accounting report*; and**
- c) **the combined statement shall contain information that assists users of a *general purpose water accounting report* to:**

- i) **understand changes during the *reporting period* in the volumes and nature of net water assets of the *water report entity*; and**
- ii) **understand the nature and volumes of *water flows* experienced during the *reporting period* of the *water report entity*.**

124. When the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows are combined and presented as a single statement, the combined statement will provide information on transactions, transformations and events that give rise to *water flows*, as well as information on changes to rights or other claims to water and changes to *water liabilities* during the *reporting period*. For example, in the case of water liabilities arising from allocation announcements, the combined statement will:

- a) include the effects of decreases in the *water liability* resulting from the physical outflow of *water* to settle allocation announcements; and
- b) include the effects of changes in the *water liability* from allocation announcements and other adjusting events associated with the *water liability* during the *reporting period*.

125. When the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows are combined and presented as a single statement:

- a) **the combined statement shall include line items that present the following volumes for the reporting period:**
 - i) ***opening water storage*;**
 - ii) ***water inflows*;**
 - iii) ***water outflows*;**
 - iv) ***change in water storage*;**
 - v) ***closing water storage*;**
 - vi) **increase in rights or other claims to *water*;**
 - vii) **decrease in *water liabilities* other than through *water flows*;**
 - viii) **decrease in rights or other claims to *water*;**
 - ix) **increase in *water liabilities* other than through *water flows*;**
 - x) **change in *net water assets* other than through *water flows*; and**
 - xi) **change in *net water assets*.**
- b) **Additional sub-classifications of a line item set out in paragraph 125 (a) shall be presented in the combined statement when the volume, nature or function of the sub-classified item is such that separate presentation is relevant to understanding the *water flows* or the changes in the *net water assets* of the *water report entity* during the *reporting period*.**

126. This Standard does not prescribe the order or format in which items are presented in a combined Statement of Changes in Water Assets and Water Liabilities and Statement of Water Flows. Additional sub-classifications of the items in paragraph 125 (a) are presented when the volume, nature or function of a sub-item is such that its separate presentation is relevant to understanding the *water flows* of the *water report entity* or changes in the *water report entity's net water assets* during the *reporting period*. The requirements and guidance in paragraphs 23–27 on materiality are considered in making this assessment.

127. Any unexplained change in volume during the *reporting period* is presented as an unaccounted-for difference in the combined Statement of Changes in Water Assets and Water Liabilities and Statement of Water Flows.

Group water accounting reports

128. A group water accounting report shall be prepared for a group water report entity by applying the requirements and guidance in this Standard.

Procedures for preparing group water accounting reports

129. A group water accounting report is the water accounting report of a group water report entity presented as a single water report entity. In preparing a group water accounting report, the preparer:

- a) combines the water accounting reports of the water entities comprising the group by aggregating, line by line, like items of water assets, water liabilities, net water assets, changes in water assets, changes in water liabilities, water inflows and water outflows; and
- b) eliminates transactions between the water entities comprising the group to ensure there is no overstatement or double-counting of water assets, water liabilities, changes in water assets, changes in water liabilities, water inflows or water outflows.

130. For example, when the water outflows from one water entity represent the water inflows of another water entity within the same group, aggregating the water accounting statements of these water entities would result in overstatements of both water inflows and water outflows. When preparing the group water accounting report for the group, adjustments are made to avoid these overstatements.

131. The water accounting reports of the water entities used to prepare the group water accounting report shall be prepared as of the same date. If the reporting date for the group is different from that of a water entity within the group, additional water accounting statements shall be prepared for that water entity as of the same date and for the same reporting period as the group water accounting report to enable the group report to be prepared.

132. A group water accounting report shall be prepared using uniform water accounting policies for like transactions, transformations and events.

Note disclosures

Content and presentation

133. The following information shall be disclosed in the notes:

- a) a statement that, except for water flow information, the general purpose water accounting report has been prepared using the accrual basis of water accounting;
- b) a summary of the significant water accounting policies used in the preparation of the general purpose water accounting report (see paragraphs 136–138);
- c) information required to be disclosed by this Standard that is not presented elsewhere in the general purpose water accounting report; and
- d) any additional information not explicitly required by this Standard that is relevant to an understanding of:
 - i) the water assets and water liabilities of the water report entity; and
 - ii) the management of those water assets and water liabilities.

134. The notes shall be presented in a systematic manner. Cross-references shall be provided for each item in the water accounting statements to any related information in the notes.

135. To assist users' understanding of the information included in general purpose water accounting reports and to facilitate comparisons, the notes are normally presented in the following order:

- a) summary of significant water accounting policies (see paragraphs 136–138);
- b) supporting information for items presented in the water accounting statements in the order in

which each statement and each item is presented, including:

- i) information about the restatement of comparative information (see paragraphs 139–140);
 - ii) information about *prior period errors* (see paragraphs 141–142);
 - iii) information about *non-adjusting events after the end of the reporting period* (see paragraphs 143–146);
 - iv) information about quantification approaches (see paragraphs 147–149); and
 - v) reconciliations and other information related to the Statement of Water Flows (see paragraph 150); and
- c) other notes, including information about:
- i) future prospects (see paragraphs 151–157);
 - ii) *contingent water assets* and *contingent water liabilities* (see paragraphs 158–160);
 - iii) *water assets* and *water liabilities* that fail the recognition criteria (see paragraphs 161–162);
 - iv) *water rights*, *water allocations* and *water restrictions* (see paragraphs 163–164);
 - v) *water market activity* (see paragraphs 165–167);
 - vi) *water* for environmental, social and cultural, and economic benefit (see paragraphs 168–171);
 - vii) segment information (see paragraphs 172–176);
 - viii) *group water accounting reports* (see paragraph 177).

Significant water accounting policies

136. The following information shall be disclosed in the summary of significant *water accounting policies*:

- a) the quantification attribute and the unit of account used in the *water accounting statements*; and**
- b) details of other *water accounting policies* used in the preparation and presentation of the *general purpose water accounting report* that are relevant to an understanding of the *water accounting statements*.**

137. In deciding whether a particular *water accounting policy* should be disclosed, it is necessary to consider whether disclosure would assist users of the *general purpose water accounting report* in understanding how transactions, transformations and events are reflected in the *water accounting statements*.

138. A *water accounting policy* may be significant because of the nature of the operations of the *water report entity* even if volumes for current and prior *reporting periods* are not material.

Restatement of comparative information

139. When comparative information is restated in accordance with paragraph 35, the following information shall be disclosed in the notes:

- a) the nature of the restatement;**
- b) the items presented in the *general purpose water accounting report* that have been affected by the restatement and the volume of the restatement of each such item; and**
- c) an explanation of why the presentation or classification changes that have caused the restatement result in more useful information being provided to users of the *general purpose water accounting report*.**

140. When, in accordance with paragraph 35, it is impracticable to restate comparative information, the following shall be disclosed in the notes:

- a) an explanation of why restatement is impracticable; and
- b) an explanation of why the presentation or classification changes made in accordance with paragraph 40 result in more useful information being provided to users of the *general purpose water accounting report*.

Prior period errors

141. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand the nature and volume of any *prior period error* corrections.

142. To give effect to the principle in paragraph 141, the following information is disclosed in the notes:

- a) the nature of the *prior period error*;
- b) for each prior *reporting period* presented, to the extent practicable, the amount of the correction for each line item affected;
- c) the amount of the correction at the beginning of the earliest prior *reporting period*; and
- d) if retrospective restatement is impracticable, the reasons why this is the case and a description of how and from when the *prior period error* has been corrected. *General purpose water accounting reports* of subsequent *reporting periods* need not repeat these disclosures.

Non-adjusting events after the end of the reporting period

143. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand the impact that *non-adjusting events after the end of the reporting period* will have on the *water assets* and *water liabilities* of the *water report entity*.

144. *Non-adjusting events after the end of the reporting period* provide evidence of conditions that arose after the end of the *reporting period*. Accordingly, they are not reflected in the *water accounting statements* for the current *reporting period*. However, if *non-adjusting events after the end of the reporting period* are material, non-disclosure could influence the decisions that users make on the basis of the *general purpose water accounting report*. Therefore, information about such events is required to be disclosed in the notes.

145. To give effect to the principle in paragraph 143, the following information is disclosed in the notes:

- a) the nature of the event; and
- b) an estimate of the impact of the event on the *water assets* and *water liabilities* of the *water report entity*.

146. The following are examples of *non-adjusting events after the end of the reporting period* for which disclosure may be appropriate:

- a) extreme precipitation after the end of the reporting period that results in a significant increase in *water storages*;
- b) changes that occur after the end of the *reporting period* to *water resource management instruments* such as *water sharing plans*;
- c) damage that occurs after the end of the *reporting period* to *water storage infrastructure* that results in a significant loss of *water*; and
- d) major post-*reporting date* purchases of *water rights* by the management of the *water report entity*.

Quantification approaches

147. Information shall be disclosed in the notes to assist users of a *general purpose water accounting report* to understand the approaches used to quantify items presented in the *water accounting statements*.

148. Different quantification approaches may be used for the various items presented in the *water accounting statements*. Those quantification approaches may give rise to materially different levels of quantification accuracy. Therefore, information is provided to assist users in understanding how an item's volume has been determined.

149. To give effect to the principle in paragraph 147, the following information is disclosed in the notes:

- a) the quantification approaches used for the items;
- b) a statement as to whether the quantification approaches are in accordance with relevant quantification standards or established practices and the identification of those standards and practices;
- c) details of any quality assurance processes underpinning the quantification approaches;
- d) the levels of accuracy or precision achieved by the quantification approaches; and
- e) the sensitivities of the quantifications to key assumptions used in the quantification approaches.

Statement of Water Flows: Reconciliations and other information

150. The following information shall be disclosed in the notes:

- a) **a reconciliation of the *change in water storage* presented in the Statement of Water Flows to the *change in net water assets* presented in the Statement of Changes in Water Assets and Water Liabilities;**
- b) **the items comprising both *opening water storage* and *closing water storage* presented in the Statement of Water Flows; and**
- c) **a reconciliation of *closing water storage* presented in the Statement of Water Flows to total *water assets* presented in the Statement of Water Assets and Water Liabilities.**

Future prospects

151. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand the future prospects of the *water report entity*.

152. To give effect to the principle in paragraph 151, the following information is disclosed in the notes:

- a) total *water assets*;
- b) *water* not available to be accessed and taken or delivered within 12 months of the *reporting date*;
- c) the difference between (a) and (b), which is the portion of *water assets* recognised in the Statement of Water Assets and Water Liabilities that will be available to be accessed and taken or delivered within 12 months of the *reporting date*;
- d) the volumes of:
 - i) *water liabilities* recognised in the Statement of Water Assets and Water Liabilities that are expected to be settled within 12 months of the *reporting date*; and
 - ii) *future water commitments* expected to be settled within 12 months of the *reporting date*; and

- e) the difference between (c) and (d), which is the surplus or deficit of available *water assets* over both *water liabilities* and *future water commitments* expected to be settled within 12 months of the *reporting date*; and
 - f) information about expected inflows to the *water report entity* within 12 months of the *reporting date* under various climatic conditions. For example, under extreme dry, dry, median and wet conditions. This also includes information about any future water rights.
153. *Dead storage water* is *water* that is below the elevation of the lowest constructed outlet. It meets the definition of a *water asset*; however, it is typically not available to be accessed and taken or delivered to settle *water liabilities* or *future water commitments*. Therefore, it typically forms part of the disclosure required by paragraph 152 (b).
154. *Conveyance water* is *water* required to operate regulated rivers and utility supply networks to enable the delivery of *water*. It meets the definition of a *water asset*; however, it is typically not available to be accessed and taken or delivered to settle *water liabilities* or *future water commitments*. Therefore, it typically forms part of the disclosure required by paragraph 152 (b).
155. A present right or other present claim to *water* may meet the definition of a *water asset*; however, conditions attached to the right or other claim to *water* may prevent the *water* from being accessed and taken or delivered within 12 months of the *reporting date*. For example, the volume of *water* that is permitted to be taken within 12 months of the *reporting date* may be capped. The excess volume over the capped amount is not available to be accessed and taken or delivered to settle *water liabilities* or *future water commitments* within 12 months of the *reporting date*. Therefore, it forms part of the disclosure required by paragraph 152 (f).
156. A future *water* right does not meet the definition of a *water asset*. However, the management of the *water report entity* may expect the future *water* right to be realised within 12 months of the *reporting period*. For example, a right may exist to *water* under an allocation that relates to the 12-month period after the *reporting date*. As such, estimated volumes form part of the disclosure required by paragraph 152 (f).
157. In some circumstances it may be appropriate to also disclose information that assists users of a *general purpose water accounting report* to understand the future prospects of the *water report entity* beyond 12 months. For example, this would be the case when the management of the *water report entity* is required to ensure the availability of *water* through multi-year droughts.

Contingent water assets and contingent water liabilities

- 158. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand the nature and volume of *contingent water assets* and *contingent water liabilities* at the *reporting date*.**
159. To give effect to the principle in paragraph 158, a brief description of the nature of each *contingent water asset* and *contingent water liability* is included in the notes. When practicable, information about volumes is also disclosed, such as estimated volumes or minimum and maximum estimated volumes.
160. A *contingent water liability* may also represent a *future water commitment*. To the extent that a *contingent water liability* is also a *future water commitment* expected to be settled within 12 months of the *reporting date*, information about that *future water commitment* is disclosed in accordance with paragraphs 151–157.

Water assets and water liabilities that fail the recognition criteria

- 161. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand the nature of items that meet the definition of *water assets* or *water liabilities*, but do not meet the recognition criteria for *water assets* or *water liabilities*.**

162. To give effect to the principle in paragraph 161, the following information is disclosed in the notes:

- a) a brief description of the nature of each item;
- b) the recognition criteria that the item failed to meet; and
- c) information about volumes, such as the range of possible volumes.

If any of the information required by paragraphs 162 (c) is not disclosed because it is not practicable, that fact shall be disclosed.

Water rights, water allocations and water restrictions

163. Information shall be disclosed in the notes that assists users of a general purpose water accounting report to understand the nature and volume of water rights, water allocations and water restrictions that relate to water assets and water liabilities of the water report entity.

164. To give effect to the principle in paragraph 163, the following information is disclosed in the notes:

- a) for each type of *water* right that existed during the *reporting period*:
 - i) a brief description of the nature of the *water* right;
 - ii) details of the attributes of the *water* right, including share or volume, reliability classification, *water* quality classification and tradability;
 - iii) details of any new issue, cancellation or conversion of the *water* right;
- b) details of any changes to administrative arrangements during the *reporting period* that affect *water* rights, *water* allocations or *water* restrictions; and
- c) details of any *water* allocation determinations and announcements or any *water* restrictions either imposed or amended during the *reporting period*.

Water market activity

165. Information shall be disclosed in the notes that assists users of a general purpose water accounting report to understand the nature and volumes of water market activity that occurred during the reporting period that relates to rights or claims to water of the water report entity.

166. To give effect to the principle in paragraph 165, the following information is disclosed in the notes:

- a) details of the number, volumes, origins and destinations of trades that have occurred during the *reporting period* for each type of right or claim to *water* of the *water report entity*; and
- b) other information relevant to an understanding of *water* market activity. This would include, for example, details of externally-imposed limitations on the trading of *water* rights of the *water report entity*, compliance with those limitations and any changes to the limitations during the *reporting period*.

167. Rights or claims to *water* of the *water report entity* includes, for example, *water* entitlements and allocations of the stakeholders. Information about the trading of these and other rights or claims to *water* of the *water report entity* is required to be disclosed in accordance with paragraph 166. For example, when a holder of a right or claim to *water* of the *water report entity* sells that right or claim during the *reporting period*, information about that trade is required to be disclosed in the *water report entity's general purpose water accounting report*.

Water for environmental, social and cultural, and economic benefit

168. Information shall be disclosed in the notes that assists users of a *general purpose water accounting report* to understand how *water assets* and *water liabilities* of the *water report entity* have been used during the *reporting period* in the pursuit of each of the following:

- a) environmental benefit;**
- b) social and cultural benefit; and**
- c) economic benefit.**

Water related to environmental benefit

169. To give effect to the principle in paragraph 168 (a), the following information is disclosed in the notes:

- a) details of non-discretionary or rules-based provisions in externally-imposed requirements aimed primarily at environmental benefit. This includes information about the objective, nature and volumes of such provisions;
- b) details of any changes in non-discretionary or rules-based provisions in externally-imposed requirements aimed primarily at environmental benefit;
- c) details of holdings of *water* rights aimed primarily at environmental benefit and discretionary provisions in externally-imposed requirements aimed primarily at environmental benefit. This includes:
 - i) details of who holds or controls such holdings and discretionary provisions;
 - ii) a description of the attributes of the holdings and discretionary provisions including the related environmental objectives;
 - iii) any changes to the holdings, including details of any *water* entitlement or *water* allocation trading, and any changes to the discretionary provisions during the *reporting period*; and
 - iv) the volumes, origins and destinations of *water* accessed and taken or delivered during the *reporting period*;
- d) information that allows users to understand compliance by the management of the *water report entity* with the rules and changes to the rules disclosed in accordance with sub-paragraphs (a) and (b) above.

Water related to social and cultural benefit

170. To give effect to the principle in paragraph 168 (b), details are disclosed in the notes of any rights or customs relating to social and cultural benefit associated with the *water assets* and *water liabilities* of the *water report entity*, whether arising from externally-imposed requirements or good practice. This includes:

- a) a brief description of the social and cultural rights, customs and associated objectives; and
- b) details of the nature of *water* associated with the rights or customs, the levels or flows maintained and the volumes, origins and destinations of *water* accessed and taken or delivered, or not accessed and taken or not delivered, during the *reporting period*.

Water related to economic benefit

171. To give effect to the principle in paragraph 168 (c), information is disclosed in the notes about the purpose, nature and volume of *water* accessed and taken or delivered during the *reporting period* to achieve economic benefits.

Segment information

- 172. Information about discrete components of the *water report entity* shall be disclosed if that information would affect the decisions users make on the basis of the *general purpose water accounting report*.**
- 173. Each discrete component for which information is disclosed in accordance with paragraph 172 shall be described as a segment of the *water report entity*.**
- 174. Segments shall be identified by considering the physical and administrative aspects of the *water report entity*. The identification of segments shall be retained from one *reporting period* to the next, unless a change provides more useful information to users of the *general purpose water accounting report*.**
175. Segments are identified by considering the physical and administrative aspects of the *water report entity*. *Water assets* and *water liabilities* that are managed independently of other *water assets* and *water liabilities* would typically be identified as a segment. This could be due to the location of a *water report entity's* *water assets* and *water liabilities*. For example, different administrative arrangements may apply to *water* resources in different locations. It may be appropriate to consider each location as a separate segment. Alternatively, *water assets* and *water liabilities* may be managed independently due to the nature of the *water assets* and *water liabilities*. For example, unregulated and regulated *water assets* may be subject to different *water* resource management instruments that may require the *water assets* to be managed independently of each other. It may be appropriate in these circumstances to consider the *water assets* subject to the different instruments as separate segments.
176. To give effect to the principle in paragraph 172, the following information is disclosed in the notes for each segment:
- a) contextual information, to the extent it is not provided elsewhere in the *general purpose water accounting report*, including:
 - i) a description of the segment, including location of its *water assets* and *water liabilities*;
 - ii) climatic conditions experienced before and during the *reporting period*;
 - iii) administrative arrangements relating to the *water assets* and *water liabilities*; and
 - iv) identification of the parties responsible for managing the *water assets* and *water liabilities*;
 - b) the volumes of:
 - i) *water assets*;
 - ii) *water liabilities*;
 - iii) *changes in water assets* and *changes in water liabilities* during the *reporting period*; and
 - iv) *water flows* during the *reporting period* including inter-segment flows; and
 - c) any additional information that is relevant to an understanding of the *water assets* and *water liabilities* of the segment and the management of those *water assets* and *water liabilities*.

A reconciliation of aggregate segment volumetric information to totals presented in the *water accounting statements* shall also be disclosed.

Group water accounting reports

- 177. A list of all *water entities* comprising the *group water report entity* shall be disclosed in the notes to a *group water accounting report*.**

Assurance of water accounting reports

- 178. A *general purpose water accounting report* shall be subjected to assurance to establish whether the report is presented fairly in accordance with this Standard.**
- 179. The assurance of a *general purpose water accounting report* shall be performed by an appropriately qualified assurance practitioner who is independent from:**
- a) the management of the *water report entity*; and
 - b) the preparer of the *general purpose water accounting report*.
- 180. A statement whether the *general purpose water accounting report* is presented fairly in accordance with this Standard shall be provided by the assurance practitioner in an assurance report accompanying the *general purpose water accounting report*.**
181. Assurance refers to the attestation of whether the *general purpose water accounting report* is presented fairly in accordance with the requirements of this Standard. The assurance function is important to enhancing users' confidence in the veracity of the information being presented.

Appendix – Defined terms

adjusting event after the reporting period	An event that occurs between the end of the <i>reporting period</i> and the date when the Accountability Statement is signed that provides evidence of conditions that existed at the end of the <i>reporting period</i> .
change in net water assets	Increases or decreases in <i>net water assets</i> for the <i>water report entity</i> from one <i>reporting date</i> to the next.
change in water assets	Increases or decreases in the <i>water report entity's water assets</i> from one <i>reporting date</i> to the next.
change in water liabilities	Increases or decreases in the <i>water report entity's water liabilities</i> from one <i>reporting date</i> to the next.
change in water storage	Increases or decreases in <i>water storage</i> for a <i>water report entity</i> from one <i>reporting date</i> to the next.
closing water storage	The total <i>water storage</i> for a <i>water report entity</i> at the <i>reporting date</i> .
constructive obligation	An obligation that derives from actions of the management of a <i>water report entity</i> whereby: <ol style="list-style-type: none">an established pattern of past practice, published policies or sufficiently specific current statement means that the management of the <i>water report entity</i> has indicated to other parties that it will accept certain responsibilities; andas a result, a valid expectation has been created on the part of those other parties that the management of the <i>water report entity</i> will discharge those responsibilities.
contingent water asset	A possible <i>water asset</i> that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the <i>water report entity</i> .
contingent water liability	A possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the <i>water report entity</i> .
conveyance water	<i>Water</i> required primarily to operate regulated rivers and utility supply networks to enable the delivery of <i>water</i> .
dead storage water	<i>Water</i> that is below the elevation of the lowest constructed outlet in a storage.
future water commitment	An expected future demand for <i>water</i> influenced by the availability and management of the <i>water assets</i> and <i>water liabilities</i> of the <i>water report entity</i> . It may arise as a result of an externally-imposed requirement or best practices for managing <i>water</i> resources.
general purpose water accounting report	A <i>water accounting report</i> intended to meet the information needs common to users who are unable to command the preparation of <i>water accounting reports</i> tailored to satisfy their information needs. A <i>general purpose water accounting report</i> is prepared in accordance with Australian Water Accounting Standards and comprises a Contextual Statement, an Accountability Statement, <i>water accounting statements</i> , and accompanying note disclosures.
groundwater	Subsurface <i>water</i> in soils and geological formations that are fully saturated.
group water accounting report	The <i>water accounting report</i> of a <i>group water report entity</i> presented as a single <i>water entity</i> .
group water report entity	A <i>water report entity</i> comprising individual <i>water entities</i> and for which a <i>group water accounting report</i> is required to be prepared under a regulation, statute or directive.

legal obligation	An obligation that derives from: <ul style="list-style-type: none"> a) a contract; b) legislation; or c) other operation of law.
net water assets	The excess of the <i>water assets</i> of the <i>water report entity</i> after deducting all of its <i>water liabilities</i> .
non-adjusting event after the end of the reporting period	An event that occurs between the end of the <i>reporting period</i> and the date when the Accountability Statement is signed that relates to conditions that arose after the end of the <i>reporting period</i> .
obligating event	An event that creates a <i>legal</i> or <i>constructive obligation</i> that results in the management of a <i>water report entity</i> having no realistic alternative to settling that obligation.
opening water storage	The total <i>water storage</i> for a <i>water report entity</i> at the beginning of the <i>reporting period</i> .
prior period errors	Omissions from, or misstatements in, the <i>water report entity's general purpose water accounting report</i> for one or more prior <i>reporting periods</i> arising from a failure to use, or misuse of, reliable information that: <ul style="list-style-type: none"> a) was available when <i>general purpose water accounting reports</i> for those <i>reporting periods</i> were issued; and b) could reasonably be expected to have been obtained and taken into account in the preparation and presentation of those <i>general purpose water accounting reports</i>.
reporting date	The end of the last day of the <i>reporting period</i> .
reporting period	The period for which a <i>water accounting report</i> is prepared.
special purpose water accounting report	A <i>water accounting report</i> tailored to the information needs of a user able to command this information.
unused allocation	<i>Water</i> allocated in a <i>reporting period</i> in accordance with a <i>water</i> resource management instrument and is yet to be accessed, taken or delivered at the <i>reporting date</i> .
water	The liquid that descends from clouds as rain and forms streams, lakes, groundwater aquifers and seas. Water is a chemical compound comprising two atoms of hydrogen and one atom of oxygen. Water may exist in solid, liquid or gaseous form.
water accounting policies	The specific principles, bases, conventions, rules and practices applied in the preparation and presentation of <i>water accounting reports</i> .
water accounting report	May be either a <i>general purpose water accounting report</i> or a <i>special purpose water accounting report</i> .
water accounting statements	Include the Statement of Water Assets and Water Liabilities, the Statement of Changes in Water Assets and Water Liabilities, and the Statement of Water Flows.
water asset	<i>Water</i> , or the rights or other claims to <i>water</i> , which the <i>water report entity</i> holds or transfers, and from which the <i>water report entity</i> , or stakeholders of the <i>water report entity</i> , derive future benefits.
water entity	An entity that: <ul style="list-style-type: none"> a) holds or transfers <i>water</i>; or b) holds or transfers rights or other direct or indirect claims to <i>water</i>; or c) has inflows and/or outflows of <i>water</i>.
water liability	A present obligation of the <i>water report entity</i> , the discharge of which is expected to result in a decrease in the <i>water report entity's water assets</i> or an increase in another <i>water liability</i> .

water report entity

A *water entity* in respect of which it is reasonable to expect the existence of users who depend on *general purpose water accounting reports* for information about *water*, or rights or other claims to *water*, which will be useful to them for making and evaluating decisions about the allocation of resources.

water storage

The total *water* in *water assets*.

WASB Approval

**Approval by the Water Accounting Standards Board of Australian Water Accounting Standard 1:
*Preparation and Presentation of General Purpose Water Accounting Reports (AWAS 1)***

Australian Water Accounting Standard 1: *Preparation and Presentation of General Purpose Water Accounting Reports* was approved by the four members of the Water Accounting Standards Board on 29 May 2012.

Michael RL Smith (Chairman)

W Peter Day

Denis W Flett

Jayne M Godfrey

Implementation Guidance



Contents

This *Implementation Guidance* accompanies, but is not part of, AWAS 1.

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A. Water accounting statements

Illustrative example 1

AWAS 1 sets out the components of general purpose water accounting reports and minimum requirements for the presentation of water accounting statements. It also prescribes further items to be presented in the water accounting statements or disclosed in the notes. This guidance provides examples of ways in which the requirements of AWAS 1 for the presentation of water accounting statements might be met.

The examples are not intended to illustrate all aspects of AWAS 1, nor do they constitute a complete general purpose water accounting report, which would also include a Contextual Statement, an Accountability Statement, and a summary of significant water accounting policies and other explanatory information.

Statement of Water Assets and Water Liabilities for Testcorp

as at 30 June 2X11

	Notes	2X11 ML	2X10 ML
WATER ASSETS			
Surface water assets			
Catchment and unregulated storage		455 000	325 000
Regulated river storage		1 650 000	1 550 000
Utility network storage		70 000	50 000
Total surface water assets		2 175 000	1 925 000
Groundwater assets			
Groundwater storage		255 000	250 000
Total groundwater assets		255 000	250 000
Other water assets			
Claims to water: intervalley		30 000	30 000
TOTAL WATER ASSETS	2	2 460 000	2 205 000
WATER LIABILITIES			
Allocation water liabilities		150 000	100 000
Other water liabilities		30 000	30 000
TOTAL WATER LIABILITIES		180 000	130 000
NET WATER ASSETS		2 280 000	2 075 000
Net water assets at beginning of reporting period		2 075 000	2 600 000
Change in net water assets	1	205 000	(525 000)
NET WATER ASSETS		2 280 000	2 075 000

Statement of Changes in Water Assets and Water Liabilities for Testcorp
for the year ended 30 June 2X11

	Notes	2X11 ML	2X10 ML
Changes in water assets			
Water asset increases		1 425 000	660 000
Water asset decreases		(1 170 000)	(1 135 000)
Net change in water assets		255 000	(475 000)
Changes in water liabilities			
Water liability increases		180 000	180 000
Water liability decreases		(130 000)	(130 000)
Net change in water liabilities		50 000	50 000
Change in net water assets	1	205 000	(525 000)

Statement of Water Flows for Testcorp
for the year ended 30 June 2X11

	Notes	2X11 ML	2X10 ML
Water inflows			
Surface water inflows		1 500 000	800 000
Groundwater inflows		55 000	20 000
Net surface water flows		1 555 000	820 000
Water outflows			
Surface water outflows		1 250 000	1 150 000
Groundwater outflows		50 000	65 000
Net groundwater flows		1 300 000	1 215 000
Net change in water storage	1	255 000	(395 000)
Opening water storage		2 175 000	2 570 000
Closing water storage	2	2 430 000	2 175 000

Note 1: Reconciliation of Change in Net Water Assets to Change in Water Storage

	2X11	2X10
	ML	ML
Change in net water assets	205 000	(525 000)
Adjustments for:		
(Decrease)/increase in accruals		
Allocation water liabilities	50 000	100 000
Claims to water: intervalley	0	30 000
	50 000	130 000
Net change in water storage	255 000	(395 000)

Note 2: Reconciliation of Closing Water Storage to Total Water Assets

	2X11	2X10
	ML	ML
Closing water storage	2 430 000	2 175 000
Comprises:		
Surface water assets	2 175 000	1 925 000
Groundwater assets	255 000	250 000
	2 430 000	2 175 000
Other water assets	30 000	30 000
Total water assets	2 460 000	2 205 000

Illustrative example 2: Combining the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows

AWAS 1 permits the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows to be combined and presented as a single statement if it will improve the understandability of the general purpose water accounting report, and only provided that combining the two statements does not abrogate other principles of the Standard, particularly the concepts of understandability, faithful representation and offsetting.

Combining the statements may, for example, be appropriate when a water report entity has minimal line items in the Statement of Water Assets and Water Liabilities that relate to rights or other claims to water, or present obligations over water. This could also be the case when, for example, a water report entity has minimal transactions relating to rights or other claims to water, or present obligations over water.

Statement of Water Assets and Water Liabilities for Integrated Catchment

as at 30 June 2X11

	2X11 ML	2X10 ML
WATER ASSETS		
Surface water assets		
Catchment and unregulated storage	455 000	325 000
Regulated river storage	1 650 000	1 550 000
Utility network storage	70 000	50 000
Total surface water assets	2 175 000	1 925 000
Groundwater assets		
Groundwater storage	255 000	250 000
Total groundwater assets	255 000	250 000
Other water assets		
Claims to water: intervalley	30 000	30 000
TOTAL WATER ASSETS	2 460 000	2 205 000
WATER LIABILITIES		
Allocation water liabilities	150 000	100 000
Other water liabilities	30 000	30 000
TOTAL WATER LIABILITIES	180 000	130 000
NET WATER ASSETS	2 280 000	2 075 000
Net water assets at beginning of reporting period	2 075 000	2 600 000
Change in net water assets	205 000	(525 000)
NET WATER ASSETS	2 280 000	2 075 000

Statement of Changes in Water Assets and Water Liabilities for Integrated Catchment

for the period ended 30 June 2X11

	2X11		2X10	
	ML	ML	ML	ML
WATER INFLOWS				
Surface water inflows	1 500 000		800 000	
Groundwater inflows	55 000		20 000	
TOTAL WATER INFLOWS	1 555 000		820 000	
WATER OUTFLOWS				
Surface water outflows	1 250 000		1 150 000	
Groundwater outflows	50 000		65 000	
TOTAL WATER OUTFLOWS	1 300 000		1 215 000	
CHANGE IN WATER STORAGE		255 000		(395 000)
OPENING WATER STORAGE		2 175 000		2 570 000
CHANGE IN WATER STORAGE		255 000		(395 000)
CLOSING WATER STORAGE		2 430 000		2 175 000
DECREASE IN RIGHTS OR OTHER CLAIMS TO WATER				
Claims to water	0		30 000	
TOTAL DECREASE IN RIGHTS OR OTHER CLAIMS TO WATER	0		30 000	
INCREASE IN WATER LIABILITIES OTHER THAN THROUGH WATER FLOWS				
Allocation water liabilities	50 000		100 000	
TOTAL INCREASE IN WATER LIABILITIES OTHER THAN THROUGH WATER FLOWS	50 000		100 000	
CHANGE IN NET WATER ASSETS OTHER THAN THROUGH WATER FLOWS	(50 000)	(50 000)		(130 000)
CHANGE IN NET WATER ASSETS	205 000	205 000		(525 000)

Illustrative example 3: Exclusion of the Statement of Water Flows

AWAS 1 requires the Statement of Water Flows to contain information that enables users of a general purpose water accounting report to understand the nature and volumes of water flows experienced by the water report entity during the reporting period. If the water report entity is a water entity that does not have any water flow events for the period, then the presentation of the Statement of Water Flows may not be required.¹

This may, for example, be the case when an environmental water holder does not hold or have management responsibilities for water, but only holds and has management responsibilities for rights and claims to water.

Statement of Water Assets and Water Liabilities for Costello State Environmental Water Holder

as at 30 June 2X11

	Notes	2X11 ML	2X10 ML
WATER ASSETS			
Claims to water		38 000	17 300
TOTAL WATER ASSETS		38 000	17 300
WATER LIABILITIES			
Allocation water liabilities		33 700	16 300
TOTAL WATER LIABILITIES		33 700	16 300
NET WATER ASSETS		4 300	1 000
Net water assets at beginning of reporting period		1 000	1 000
Change in net water assets		3 300	0
NET WATER ASSETS		4 300	1 000

Statement of Changes in Water Assets and Water Liabilities for Costello State Environmental Water Holder

for the year ended 30 June 2X11

	Notes	2X11 ML	2X10 ML
Changes in water assets			
Water asset increases		21 480	17 800
Water asset decreases		(780)	(1 500)
Net change in water assets		20 700	16 300
Changes in water liabilities			
Water liability increases		17 900	16 300
Water liability decreases		(500)	0
Net change in water liabilities		17 400	16 300
Change in net water assets		3 300	0

¹ If the Statement of Water Flows is omitted from the general purpose water accounting report, a statement explaining its omission shall be included in the notes as a significant water accounting policy.

Illustrative example 4: Exclusion of the Statement of Changes in Water Assets and Water Liabilities

AWAS 1 requires the Statement of Changes in Water Assets and Water Liabilities to contain information that enables users of a general purpose water accounting report to understand changes in the volume and nature of the water report entity's net water assets. If the water report entity is a water entity that does not have any rights or claims to water, or has no obligations against its water assets, then the presentation of the Statement of Changes in Water Assets and Water Liabilities may not be required.²

This may, for example, be the case for a water report entity that relies only on inflows of water from natural events and has no obligations related to the water it holds or transfers.

Statement of Water Assets and Water Liabilities for Sheridan Limited

as at 30 June 2X11

	Notes	2X11 ML	2X10 ML
WATER ASSETS			
Surface water assets			
Catchment and unregulated storage		455 000	325 000
River storage		1 720 000	1 600 000
Total surface water assets		2 175 000	1 925 000
Groundwater assets			
Groundwater storage		255 000	250 000
Total groundwater assets		255 000	250 000
TOTAL WATER ASSETS		2 430 000	2 175 000
NET WATER ASSETS		2 430 000	2 175 000
Net water assets at beginning of reporting period		2 175 000	2 570 000
Change in net water assets		255 000	(395 000)
NET WATER ASSETS		2 430 000	2 175 000

² If the Statement of Changes in Water Assets and Water Liabilities is omitted from the general purpose water accounting report, a statement explaining its omission shall be included in the notes as a significant water accounting policy.

Statement of Water Flows for Sheridan Limited

for the year ended 30 June 2X11

	Notes	2X11 ML	2X10 ML
Water inflows			
Surface water inflows		1 500 000	800 000
Groundwater inflows		55 000	20 000
Net surface water flows		1 555 000	820 000
Water outflows			
Surface water outflows		1 250 000	1 150 000
Groundwater outflows		50 000	65 000
Net groundwater flows		1 300 000	1 215 000
Net change in water storage		255 000	(395 000)
Opening water storage		2 175 000	2 570 000
Closing water storage		2 430 000	2 175 000

B. Future prospects

AWAS 1 (paragraphs 151–157) requires information to be disclosed in the notes that assists users of a general purpose water accounting report to understand the future prospects of the water report entity. This implementation guidance demonstrates how the information required by AWAS 1 may be presented in the notes.

Illustrative example 1: Future prospects

The volumes disclosed below for future commitments and expected inflows are based on the following assumptions:

- Dry: Lowest inflow from the previous 20 years
- Median: Median inflow from the previous 20 years
- Wet: Highest inflow from the previous 20 years.

Climatic conditions	Dry	Median	Wet
	ML	ML	ML
Total water assets as at 30 June 2X11	15 000	15 000	15 000
Less water assets not available to be accessed and taken or delivered			
Dead storage	(3 000)	(3 000)	(3 000)
Conveyance water	(500)	(500)	(500)
	11 500	11 500	11 500
Less total water liabilities as at 30 June 2X11	(700)	(700)	(700)
	10 800	10 800	10 800
Less future water commitments expected to be settled within 12 months of the reporting date			
Expected diversion of high security allocation	(10 000)	(10 000)	(10 000)
Expected diversion of general security allocation	(20 000)	(40 000)	(80 000)
Expected diversion of unregulated entitlements	(1 200)	(8 500)	(23 000)
Surplus/(deficit) of available water assets over water liabilities and future water commitments expected to be settled within 12 months of the reporting date	(20 400)	(47 700)	(102 200)
Add expected inflows within 12 months of the reporting date			
Inflow of runoff	8 000	40 000	100 000
Inflow from external water report entity	5 000	10 000	10 000
Other inflows (net of evaporation)	0	1 500	8 000
Add future water rights expected to be realised within 12 months of the reporting date	(7 400)	3 800	15 800
Expected purchase of water rights from external water report entities	6 000	2 000	0
Surplus/(deficit) of available water assets, expected future inflows and future water rights over water liabilities and future water commitments within 12 months of the reporting date	(1 400)	5 800	15 800

Illustrative example 2: Future prospects

Total water assets as at 30 June 2X11	12 500
Less water assets not available to be accessed, taken or delivered	
Dead storage	(6 000)
Conveyance water	(1 000)
	5 500
Less total water liabilities as at 30 June 2X11	(250)
	5 250
Less future water commitments expected to be settled within 12 months of the reporting date	
Environmental diversion to wetland	(10 000)
Ongoing water commitment	(14 000)
	(18 750)
Surplus/(deficit) of available water assets over water liabilities and future water commitments expected to be settled within 12 months of the reporting date	

The deficit of available water assets over water liabilities and future commitments will be met with future inflows and future rights to water. Based on historical data, future inflows to the water report entity are likely to be between 18 000 and 103 000 ML, with median inflows being 61 500 ML. Future water rights include an ongoing right to receive 18 000 ML from an upstream water report entity. In the past, this volume has been reduced to 3 000 ML following the suspension of the water sharing plan due to dry climatic conditions.

C. Accrual accounting

AWAS 1 (paragraphs 21–22) requires general purpose water accounting reports to be prepared using the accrual basis of accounting. This guidance provides examples of the application of the accrual basis of accounting to water accounting. The water accounting entries provided in the illustrative examples below indicate whether the entry has an impact on either the Statement of Water Assets and Water Liabilities (SWAWL) or the Statement of Changes in Water Assets and Water Liabilities (SCWAWL)

Illustrative example 1: Water allocation announcement and subsequent delivery of water to settle the water allocation carryover

In this example:

- DiMichiel Water comprises regulated rivers and water storages.
- DiMichiel Water is subject to a water sharing plan and makes two-year water allocation determinations.
- Allan Water is downstream of DiMichiel Water and is a water entitlement holder.
- As at 1 July 20X1, the beginning of the water reporting period, DiMichiel Water and Allan Water have the following water assets and water liabilities:

Statement of Water Assets and Water Liabilities as at 1 July 20X1

	DiMichiel Water	Allan Water
Water assets	5 000	1 000
Water liabilities		
Allocation carryover	0	0
Net water assets	5 000	1 000

- On 10 July 20X1, DiMichiel Water announces its two-year water allocation for Allan Water – 1 400 ML for the year ending 30 June 20X2 and 1 400 ML for the year ending 30 June 20X3, subject to the availability of water in a particular year.
- During the annual water reporting period ending 30 June 20X2, Allan Water takes 1 300 ML of its 20X1/X2 water allocation. The 100 ML of undelivered water is carried over into the next water reporting period (20X2/X3).

The following water accounting entries would be recorded for the annual water reporting period ending 30 June 20X2:

Date	DiMichiel Water	Debit	Credit
10 July 20X1	Water liability increase – allocation announcement (SCWAWL)	1 400	
	Water liability – allocation carryover (SWAWL)		1 400
	<i>Record allocation carryover water liability for the first year allocation (20X1/X2) at the time of the allocation announcement^a</i>		
July 20X1 – June 20X2	Water liability – allocation carryover (SWAWL)	1 300	
	Water asset (SWAWL)		1 300
	<i>Record physical flow of water to settle the allocation carryover water liability</i>		

Allan Water	Debit	Credit
Water asset – claim to water (SWAWL)	1 400	
Water asset increase – increase in claims to water (SCWAWL)		1 400
<i>Record claim to water for the first year allocation (20X1/X2) at time of the allocation announcement^b</i>		
Water asset (SWAWL)	1 300	
Water asset – claim to water (SWAWL)		1 300
<i>Record physical flow of water by reducing claim to water and increasing surface water asset</i>		

Notes:

- a. It is only the allocation for the first year (20X1/X2) that represents a present obligation and is therefore recognised as a water liability. The allocation for the second year (20X2/X3) represents a future water commitment. It would be recognised as a water liability at the beginning of 20X2/X3 to the extent that there is water available to be taken or delivered.
- b. Consistent with Note (a) above, it is only the allocation for the first year (20X1/X2) that represents a water asset. The allocation for the second year (20X2/X3) represents a contingent water asset (contingent on there being water available to be taken/delivered in 20X2/X3).

Assuming no other transactions for either entity, the water accounting statements for DiMichiel Water and Allan Water would be as follows:

Statement of Water Assets and Water Liabilities as at 30 June 20X2

	DiMichiel Water	Allan Water
Water assets		
Water asset	3 700	2 300
Other water asset		100
Water liabilities		
Allocation carryover	(100)	0
Net water assets	3 600	2 400

Statement of Changes in Water Assets and Water Liabilities for the year ended 30 June 20X2

	DiMichiel Water	Allan Water
Water asset increases		
Other water asset increases		1 400
Water asset decreases		
Water decreases	(1 400)	0
Change in net water assets	(1 400)	1 400

Statement of Water Flows for the year ended 30 June 20X2

	DiMichiel Water	Allan Water
Water flows		
Water inflows		1 300
Water outflows	(1 300)	
Net change in water storage	(1 300)	1 300
Opening water storage	5 000	1 000
Closing water storage	3 700	2 300

Illustrative example 2: Two-year water allocation announcement and portion of second year allocation taken/delivered in first year (i.e. water received in advance)

In this example:

- Assume the same fact pattern as in illustrative example 1, except that during the annual water reporting period ending 30 June 20X2, Allan Water takes its first year allocation in full (i.e. 1 400 ML). In addition, on 31 May 20X2 Allan Water requests that 300 ML of its second year allocation be delivered in advance. DiMichiel Water accepts this request and delivers the water during June 20X2.

The following water accounting entries would be recorded for the annual water reporting period ending on 30 June 20X2:

Date		DiMichiel Water		Allan Water		
		Debit	Credit	Debit	Credit	
10 July 20X1	Water liability increase – allocation announcement (SCWAWL)	1 400		Water asset – claim to water (SWAWL)	1 400	
	Water liability – allocation carryover (SWAWL)		1 400	Water asset increase – increase in claims to water (SCWAWL)		1 400
		<i>Record allocation carryover water liability for the first year allocation (20X1/X2) at the time of the allocation announcement</i>				
July 20X1 – May 20X2	Water liability – allocation carryover (SWAWL)	1 400		Water asset (SWAWL)	1 400	
	Water asset (SWAWL)		1 400	Water asset – claim to water (SWAWL)		1 400
		<i>Record physical flow of water to settle the first year allocation carryover water liability</i>				
June 20X2	Water asset – water delivered in advance (SWAWL)	300		Water asset (SWAWL)	300	
	Water asset (SWAWL)		300	Water liability – water received in advance (SWAWL)		300
		<i>Record physical flow of second year water allocation delivered in advance^a</i>				
		<i>Record claim to water for the first year allocation (20X1/X2) at time of the allocation announcement</i>				
		<i>Record physical flow of water by reducing claim to water and increasing surface water asset</i>				
		<i>Record physical flow of second year water allocation received in advance^b</i>				

Notes:

- 'Water delivered in advance' represents a water asset. The water that has been delivered relates to an allocation of water for a future reporting period. The advance delivery effectively results in DiMichiel Water having to deliver less water in the future reporting period and therefore represents a future benefit. The water asset will be de-recognised via the Statement of Changes in Water Assets and Water Liabilities in the future reporting period to which the water relates (i.e. the 20X2/X3 water reporting period).
- 'Water received in advance' represents a water liability. The water that has been received relates to an allocation of water for a future reporting period. The advance delivery effectively results in Allan Water being entitled to less water in the future reporting period. The water liability will be de-recognised via the Statement of Changes in Water Assets and Water Liabilities in the future reporting period to which the water relates (i.e. the 20X2/X3 water reporting period).

Assuming no other transactions for either entity, the water accounting statements for DiMichiel Water and Allan Water would be as follows:

Statement of Water Assets and Water Liabilities as at 30 June 20X2

	DiMichiel Water		Allan Water
Water asset	3 300		2 700
Other water asset	300 ^a		
Water liabilities			
Water received in advance			(300) ^a
Net water assets	3 600		2 400

Statement of Changes in Water Assets and Water Liabilities for the year ending 30 June 20X2

	DiMichiel Water		Allan Water
Water asset increases			
Other water asset increases			1 400
Water asset decreases			
Water decreases	(1 400)		0
Change in net water assets	(1 400)		1 400

Statement of Water Flows for the year ending 30 June 20X2

	DiMichiel Water		Allan Water
Water flows			
Water inflows			1 700
Water outflows	(1 700)		
Net change in water storage	(1 700)		1 700
Opening water storage	5 000		1 000
Closing water storage	3 300		2 700

Note:

- a. The 300 ML of water that has been delivered or received in advance relates to an allocation of water for a future reporting period. Accordingly, it is recognised in the period of delivery/receipt as a water asset/water liability in the accounts of DiMichiel Water and Allan Water respectively. The water asset/water liability will be de-recognised via the Statement of Changes in Water Assets and Water Liabilities in the future reporting period to which the water relates (i.e. the 20X2/X3 water reporting period). Accordingly, the Statement of Changes in Water Assets and Water Liabilities for the year ended 30 June 20X2 does not include this water in advance. However, because it represents a physical water flow, it is included in the Statement of Physical Water Flows for the year ended 30 June 20X2.

Assuming DiMichiel Water delivers 1 100 ML of water during 20X2/X3, the following water accounting entries would be recorded for the annual water reporting period ending 30 June 20X3:

Date		DiMichiel Water		Allan Water		
		Debit	Credit		Debit	Credit
1 July 20X2	Water liability increase – allocation announcement (SCWAWL)	1 400		Water asset – claim to water (SWAWL)	1 100	
	Water liability – allocation carryover (SWAWL)		1 100	Water liability – water received in advance (SWAWL)	300	
	Water asset – water delivered in advance (SWAWL)		300	Water asset increase – increase in claims to water (SCWAWL)		1 400
	<i>Record allocation carryover water liability for the second year allocation (20X2/X3) and de-recognise the water delivered in advance</i>			<i>Record claim to water for the second year allocation (20X2/X3) and de-recognise the water received in advance</i>		
July 20X2 – June 20X3	Water liability – allocation carryover (SWAWL)	1 100		Water asset (SWAWL)	1 100	
	Water asset (SWAWL)		1 100	Water asset – claim to water (SWAWL)		1 100
	<i>Record physical flow of water to settle the second year allocation carryover water liability</i>			<i>Record physical flow of water by reducing claim to water and increasing surface water asset</i>		

Assuming no other transactions for either entity, the water accounting statements for DiMichiel Water and Allan Water would be as follows:

Statement of Water Assets and Water Liabilities as at 30 June 20X3

	DiMichiel Water	Allan Water
Water asset	2 200	3 800
Other water asset		
Water liabilities		
Water received in advance		
Net water assets	2 200	3 800

Statement of Changes in Water Assets and Water Liabilities for the year ending 30 June 20X3

	DiMichiel Water	Allan Water
Water asset increases		
Other water asset increases		1 400
Water asset decreases		
Water decreases	(1 400)	0
Change in net water assets	(1 400)	1 400

Statement of Water Flows for the year ending 30 June 20X3

	DiMichiel Water	Allan Water
Water flows		
Water inflows		1 100
Water outflows	(1 100)	
Net change in water storage	(1 100)	1 100
Opening water storage	3 300	2 700
Closing water storage	2 200	3 800

D. Water assets

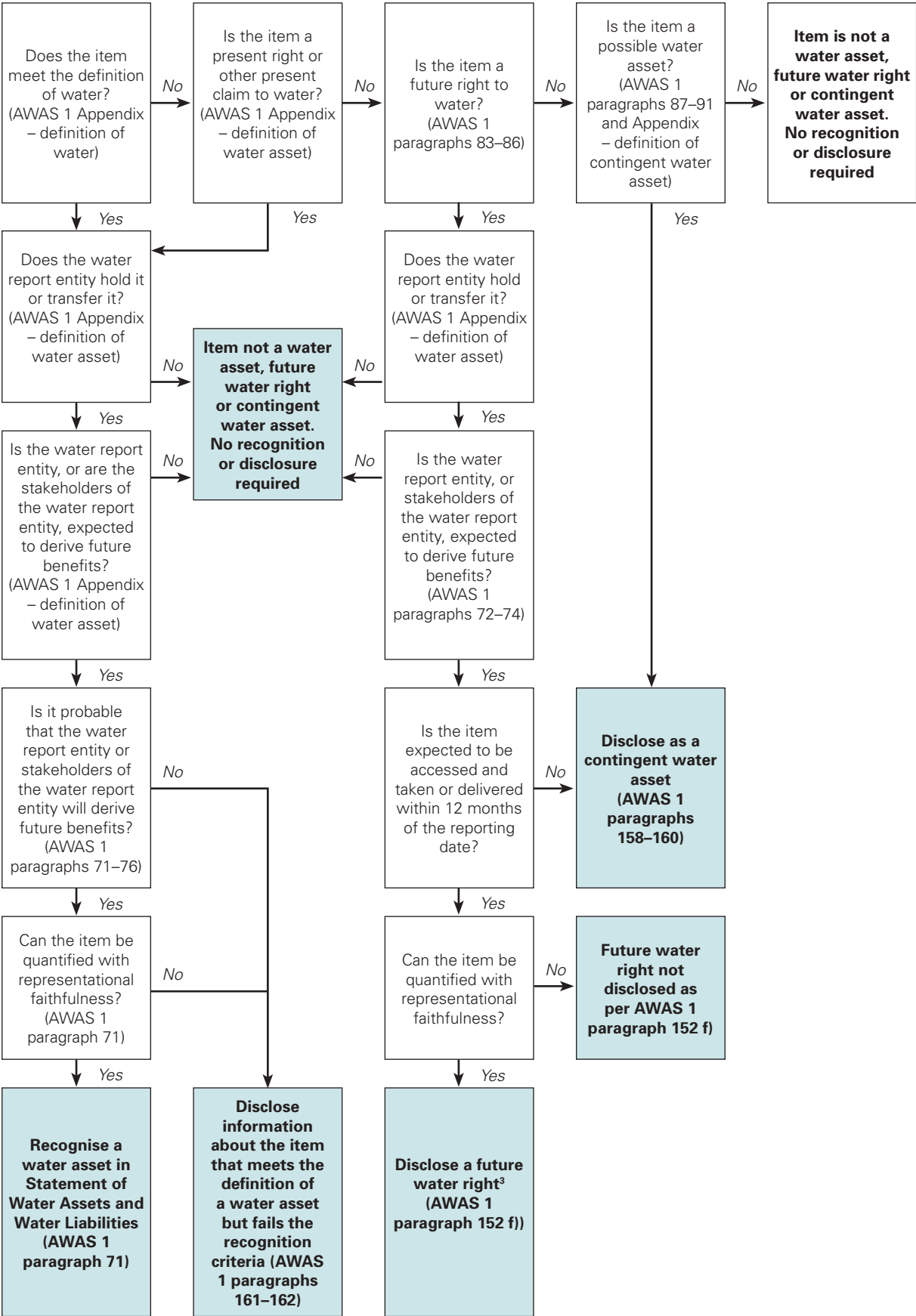
The following examples illustrate the application of the definition of, and recognition criteria for, a water asset.

For an item to meet the definition of a water asset and be recognised in the Statement of Water Assets and Water Liabilities, it must satisfy the following criteria:

- (a) it is water, or the present right or other present claim to water;
- (b) the water report entity either holds or transfers it;
- (c) it is probable (more likely than not) that the water report entity, or stakeholders of the water report entity, will derive future benefits; and
- (d) the item's volume can be quantified with representational faithfulness.

Water assets, future water rights and contingent water assets

The following is a diagrammatic representation of the steps necessary to determine whether an item is a water asset, future water right or contingent water asset.



3 The item may also qualify as a contingent water liability.

Illustrative example 1: Sea water in terrestrial phase

Desal Limited (Desal) is a water report entity. It operates a desalination plant off the east coast of Australia. Desal has a licence to draw up to 1 000 000 ML of sea water from the ocean per year to convert into fresh water. Before the sea water from the ocean is pumped through the plant and converted to fresh water, it first flows into water storages constructed by Desal. These storages separate the sea water that Desal will use in the desalination plant from sea water in the ocean. The sea water in the storages is pumped through the Desal plant in accordance with Desal's production schedule to produce fresh water. The fresh water produced is sold to the nearby communities at a regulated price.

Does the item (sea water) meet the definition of water? – Yes

Sea water meets the definition of water.

The licence to draw up to 1 000 000 ML of sea water from the ocean (i.e. sea water in marine phase) represents a right to water.

Does the water report entity hold or transfer it? – Yes

Sea water in the marine phase is outside the scope of AWAS 1. However, the sea water in the storages is considered to be sea water in the terrestrial phase. Desal holds the sea water in the storages and transfers it to the desalination site.

Is it probable that the water report entity or its stakeholders will derive future benefits? – Yes

Desal derives future economic benefits by selling to communities the fresh water it desalinates after extracting it from the ocean.

Conclusion

The sea water in the terrestrial phase satisfies each element of the water asset definition and also the probable future benefits recognition criterion. To the extent that Desal is able to quantify the volume of sea water in the terrestrial phase with representational faithfulness, Desal recognises it in the Statement of Water Assets and Water Liabilities.

Note: Because the licence held by Desal is to draw up to 1 000 000 ML of sea water *in the marine phase*, the right does not meet the definition of a water asset and is not recognised in the Statement of Water Assets and Water Liabilities. Sea water in the marine phase before it is stored in the terrestrial phase or any rights to such water cannot meet the definition of a water asset since it is explicitly outside the scope of AWAS 1.

Illustrative example 2: Sewage

Kenny Pty Ltd (Kenny) is a company owned and managed by the local council that is responsible for treating sewage. Kenny uses the treated sewage to irrigate local parks and maintain local recreational areas. The treatment of the sewage achieves environmental and social benefit. Irrigation of the local parks and maintaining the local recreational areas ensures the survival of the local flora and fauna. As a result, the local area is a popular tourist destination for nature lovers.

The local council is a water report entity preparing a general purpose water accounting report.

Does the item (sewage) meet the definition of water? – Yes

Sewage is made up of water and other wastes, in either solution or suspension. Sewage and its effluent meets the definition of water.

Does the water report entity hold or transfer it? – Yes

The local council, through Kenny, has management responsibility for the sewage that it receives from surrounding communities. The sewage is held when it is stored in treatment ponds while it is being treated.

Is it probable that the water report entity or its stakeholders will derive future benefits? – Yes

The local council and the community it serves derive environmental and social benefits from the treated sewage. The environmental benefits are derived from maintaining the local flora and fauna. The social benefits are derived from providing an aesthetic getaway for nature lovers.

Conclusion

Sewage held by the council in the sewage treatment ponds satisfies each part of the water asset definition for the local council. It also satisfies the probable future benefits recognition criterion. To the extent that the local council is able to quantify the volume of the sewage with representational faithfulness, it recognises sewage in its Statement of Water Assets and Water Liabilities.

Illustrative example 3: Water in pipes

Brandman Limited (Brandman) is an urban water utility company that provides water to residents using its vast network of pipes.

Brandman is a water report entity and is preparing a general purpose water accounting report.

Does the item (water in pipes) meet the definition of water? – Yes

The water in the pipes meets the definition of water.

Does the water report entity hold or transfer it? – Yes

Brandman holds water in its pipes, and transfers it to its customers.

Is it probable the water report entity or its stakeholders will derive future benefits? – Yes

The water in the pipes provides future benefits because it enables the delivery of water to residents. Brandman derives future economic benefit from the water in the pipes.

Conclusion

Water in pipes satisfies each part of the water asset definition. It also satisfies the probable future benefits recognition criterion. To the extent that Brandman is able to quantify the volume of water in pipes with representational faithfulness, it recognises water in pipes in the Statement of Water Assets and Water Liabilities.

Illustrative example 4: Water in tailing dams

Garlin Limited (Garlin) is a gold mining company. It has recently identified a rich deposit of gold that is located under an aquifer. By law, gold mining companies are required to maintain tailing dams to capture or store all contaminated water from mining operations. As it is difficult to reduce the harmful effects of the contaminated water, Garlin does not treat it or use it for any other purpose. It holds the contaminated water in the tailing dams indefinitely to facilitate evaporation.

Garlin is a water report entity and is required to prepare a general purpose water accounting report.

Does the item (water in tailing dams) meet the definition of water? – Yes

The contaminated water in the tailing dams meets the definition of water.

Does the water report entity hold or transfer it? – Yes

Garlin holds water in the tailing dams (to ensure that it does not leak or seep into the environment and pollute local river systems).

Is it probable the water report entity or its stakeholders will derive future benefits? – No

As the contaminated water in the tailing dams is not likely to be treated and used for another purpose, Garlin will not derive a future benefit from the contaminated water in the tailing dams.

Conclusion

Because Garlin does not derive a future benefit from the contaminated water in the tailing dams, the contaminated water does not meet the definition of a water asset for Garlin. Accordingly, the contaminated water is not recognised in the Statement of Water Assets and Water Liabilities.

Variation to this example

If Garlin could purify or treat the contaminated water to remove the heavy metals and use it for other purposes, such as in its mining operations, a future benefit would be derived. The contaminated water would then meet the definition of a water asset. To the extent that Garlin is able to quantify the volume of the contaminated water with representational faithfulness, it recognises the contaminated water in the Statement of Water Assets and Water Liabilities.

Note: Some have suggested that the contaminated water in tailing dams would also provide future environmental benefit to the extent that the tailing dams prevent the contaminated water from polluting surrounding water resources. However, this environmental benefit is derived from the dam wall or infrastructure rather than the contaminated water in the tailing dams.

Illustrative example 5: Soil moisture

5.1. Nunan Farm

Nunan Farm is a water report entity. It is a large-scale grower of exotica roses. Exotica roses are difficult to grow, as they require optimal levels of soil moisture throughout their 180-day lifecycle from planting to harvest. Nunan Farm, using highly sophisticated techniques, closely monitors soil moisture to ensure that it is kept ideal for growing exotica roses. Nunan irrigates the farm using water purchased from the nearby water authority.

Nunan Farm prepares general purpose water accounting reports. Nunan Farm believes that soil moisture is relevant to an understanding of its water resources and therefore assesses whether soil moisture can be included in the Statement of Water Assets and Water Liabilities as follows:

Does the item (soil moisture) meet the definition of water? – Yes

Soil moisture meets the definition of water.

Does the water report entity hold or transfer it? – Yes

Nunan Farm owns the land in which the soil moisture is held. Nunan Farm has management responsibility over the soil moisture, monitors the soil moisture and maintains the soil moisture at a specified level.

Is it probable the water report entity or its stakeholders will derive future benefits? – Yes

Nunan Farm maintains soil moisture at specific levels so that it can grow exotica roses that are sold to the market for a profit. Nunan Farm derives economic benefits from maintaining soil moisture.

Conclusion

To the extent that Nunan Farm is able to quantify the volume of soil moisture with representational faithfulness, it recognises soil moisture in the Statement of Water Assets and Water Liabilities.

5.2. Lake Robertson

Lake Robertson and the surrounding catchment is a water report entity for which a general purpose water accounting report is prepared. The catchment incorporates the land and the soil moisture over which Nunan Farm has management responsibilities. In this instance, soil moisture volumes are not considered material.

Does the item (soil moisture) meet the definition of water? – Yes

Soil moisture meets the definition of water.

Does the water report entity hold or transfer it? – Yes

Lake Robertson and the surrounding catchment includes the land that holds the soil moisture.

Is it probable the water report entity or its stakeholders will derive future benefits? – Yes

The stakeholders in Lake Robertson derive benefits from increased runoff that occurs due to the soil moisture.

Conclusion

The soil moisture meets the definition of a water asset for Lake Robertson and the surrounding catchment. However, the preparer of the general purpose water accounting report has decided not to present soil moisture as a water asset because in this instance it is immaterial. Hence, its omission is not considered to give rise to a material misstatement.

5.3. Moonwater

Moonwater is a water report entity that has management responsibility for the rivers and tributaries of Vanderbyl Basin. Moonwater does not have management responsibility for the catchment area, nor does it have management responsibility for the soil moisture in the catchment area

Does the item (soil moisture) meet the definition of water? – Yes

Soil moisture meets the definition of water.

Does the water report entity hold or transfer it? – No

Moonwater does not have management responsibility for, and hence does not hold or transfer the soil moisture in the catchment area.

Is it probable the water report entity or its stakeholders will derive future benefits? – *Not relevant because the second criterion is not satisfied*

Conclusion

The soil moisture in the Vanderbyl Basin does not meet the definition of a water asset of Moonwater. Therefore, it is not recognised as a water asset in Moonwater's Statement of Water Assets and Water Liabilities.

Illustrative example 6: Floodwater

6.1. McArthurville

McArthurville is a catchment area for which a general purpose water accounting report is prepared. The catchment contains major rivers, including the floodplains, surface water reservoirs and groundwater aquifers over which the Costello State Department of Natural Resources has management responsibility. For a number of years McArthurville had received lower than average rainfall, and as a consequence surface water reservoirs and groundwater aquifers were well below capacity. During the current reporting period, McArthurville received above average rainfall which resulted in water spilling onto the floodplains.

Does the floodwater meet the definition of water? – Yes

Floodwater meets the definition of water.

Does the water report entity hold or transfer it? – Yes

The boundary of the water report entity includes the floodplains. Therefore, the water report entity holds the water that spills onto the floodplains.

Is it probable the water report entity or its stakeholders will derive future benefits from the floodwater? – Yes

Water on the floodplain will provide future benefits to McArthurville as it replenishes surface water reservoirs and groundwater aquifers. The floodwater also deposits rich nutrients into the soil.

Conclusion

To the extent that the volume of floodwater in the water report entity can be quantified with representational faithfulness, it is recognised as a water asset in the Statement of Water Assets and Water Liabilities.

6.2. Ringrow Farm

Ringrow Farm is a producer of almonds and a water report entity. The almond trees require well-draining soil and will drown if they become waterlogged for an extended period. During the current reporting period, the catchment experienced massive flooding, which inundated Ringrow Farm and waterlogged the almond trees beyond their tolerance, destroying the majority of the crop.

Does the floodwater meet the definition of water? – Yes

Floodwater meets the definition of water.

Does the water report entity hold or transfer it? – Yes

Ringrow Farm owns the land the floodwater is covering; therefore it holds the floodwater.

Is it probable the water report entity or its stakeholders will derive future benefits from the floodwater? – No

The floodwater is not available to provide future benefits as it was unable to be captured for future use. Further to this, Ringrow Farm does not derive future benefits from the floodwater, which has destroyed the crop from which an economic benefit was to be derived.

Conclusion

The floodwater does not meet the definition of a water asset of Ringrow Farm. Therefore, it is not recognised as a water asset in Ringrow Farm's Statement of Water Assets and Water Liabilities.

E. Water liabilities

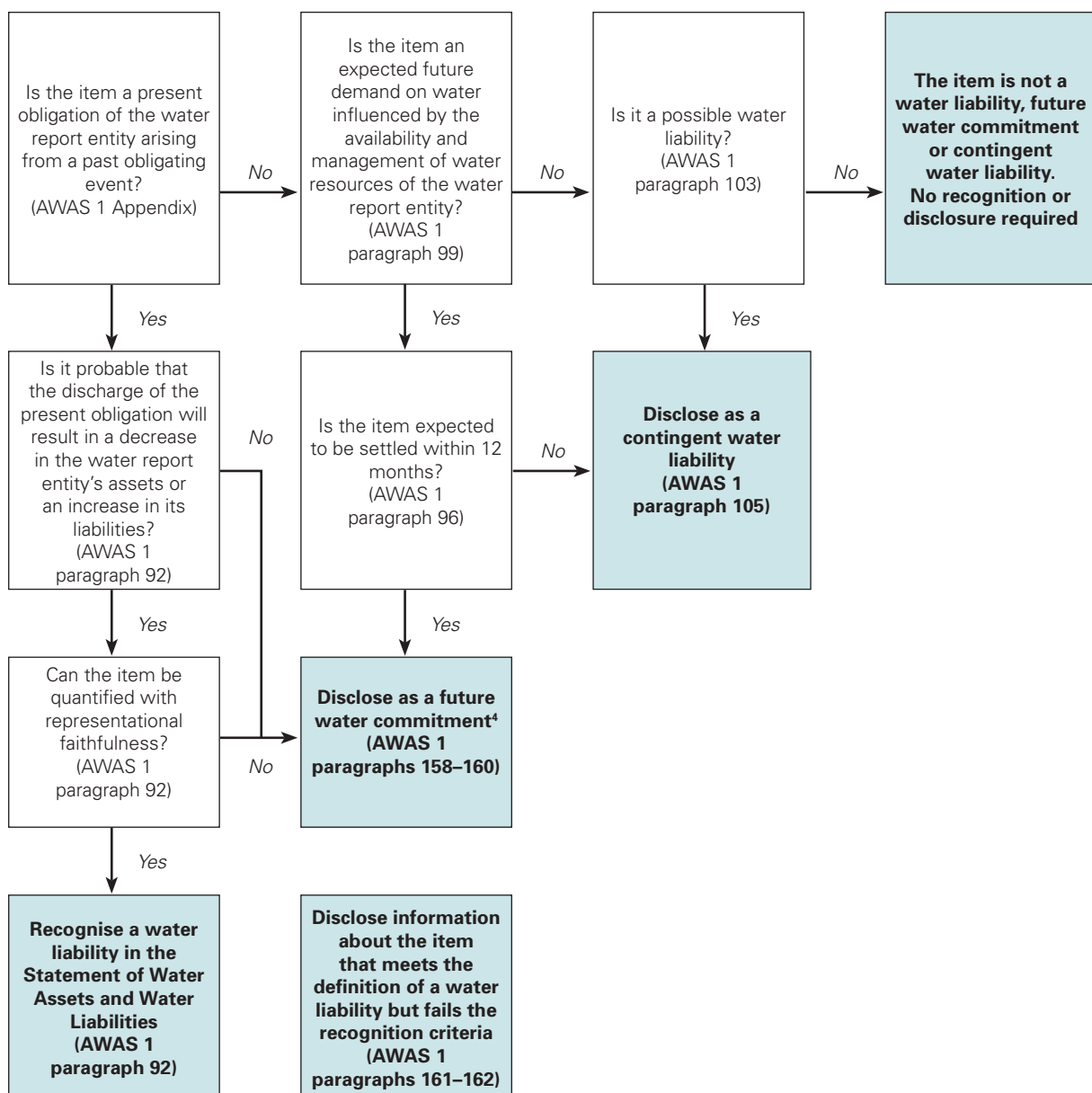
The following examples illustrate the application of the definition of, and recognition criteria for, a water liability.

For an item to meet the definition of a water liability and be recognised in the Statement of Water Assets and Water Liabilities, it must satisfy the following criteria:

- it is a present obligation arising from a past obligating event;
- it is probable (more likely than not) that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its water liabilities;
- the water report entity must be able to quantify the item's volume with representational faithfulness.

Water liabilities, future water commitment and contingent water liabilities

The following is a diagrammatic representation of the steps necessary to determine whether an item is a water liability, future water commitment or contingent water liability.



4 The item may also qualify as a contingent water liability.

Illustrative example 1: Ongoing water commitments

Howe Reservoir is a water report entity. At the beginning of the current reporting period, the management of Howe Reservoir granted Tys Mining Ltd (Tys) a licence to extract up to 6 000 000 ML of water for the next 20 years. The terms of the licence permit Tys to extract 1 200 ML of water per day up to a maximum of 300 000 ML per year. By the end of the year, Tys had extracted 255 000 ML. Tys is permitted to carry over the undelivered volume of water.

Is the item (the ongoing water commitment) a present obligation of the water report entity arising from a past obligating event? – Yes

The licence granted to Tys represents an obligating event. It allows Tys to extract up to 300 000 ML of water per year. The undelivered volume gives rise to a present obligation at the reporting date.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its liabilities? – Yes

The discharge of the present obligation (being the delivery of water to Tys) will result in a decrease in the water assets of Howe Reservoir or an increase in the water liabilities of Howe Reservoir.

Conclusion

The undelivered water satisfies the definition of a water liability. It also satisfies the recognition criterion that it is probable that Howe Reservoir's discharge of the present obligation will result in a decrease in the water report entity's assets.

Therefore, to the extent that the management of Howe Reservoir is able to quantify the volume of the water liability with representational faithfulness, the undelivered water is recognised as a water liability in the Statement of Water Assets and Water Liabilities.

The management of Howe Reservoir cannot recognise a water liability for the volume of water that Tys is able to extract each subsequent year under its licence. The requirement to deliver water in future reporting periods under the licence is not a present obligation.

The volume of waste that the management of Howe Reservoir is obliged to deliver or make available to Tys in the next 12 months is disclosed as a future water commitment.

Illustrative example 2: Two-year water allocation

Oliphant Reservoir is a water report entity. During the year, the management of Oliphant Reservoir announced a water allocation to Beveridge Enterprises (Beveridge). The allocation entitles Beveridge to draw 150 000 ML in the first year and 130 000 ML in the second year. Beveridge is not able to draw any part of the second year water allocation in the first year. At the end of the first year, Beveridge has drawn 105 000 ML of water. Beveridge is permitted to carry over the undelivered volume of water.

Is the item (the claim in year 1 and the claim in year 2) a present obligation of the water report entity arising from an obligating event? – Yes: Year 1 carryover; No: Year 2 allocation

The announcement of the allocation to Beveridge represents the past obligating event. It obliges the management of Oliphant Reservoir to deliver or make available to Beveridge 150 000 ML of water in the first year and 130 000 ML of water in the second year.

45 000 ML is the volume of water that the management of Oliphant Reservoir still has to make available to Beveridge at the end of the first year. The undelivered volume relating to the first year of 45 000 ML gives rise to a present obligation at the end of the first year.

At the end of the first year, there is no present obligation for the management of Oliphant Reservoir to deliver the second year allocation of 130 000 ML.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its liabilities? – Yes

The discharge of the present obligation (being the delivery of undelivered water to Beveridge for the first year's allocation) will result in a decrease in the water assets of Oliphant Reservoir.

Conclusion

The undelivered water from the first year's allocation satisfies the definition of a water liability. It also satisfies the recognition criterion that it is probable that Oliphant Reservoir's discharge of the present obligation will result in a decrease in the water report entity's assets.

Therefore, to the extent that the management of Oliphant Reservoir is able to quantify the volume of the water liability with representational faithfulness, the undelivered water is recognised as a water liability in the Statement of Water Assets and Water Liabilities.

The second year allocation of 130 000 ML does not represent a present obligation relating to the current or past reporting periods and would not be recognised in Oliphant Reservoir's Statement of Water Assets and Water Liabilities. It is a future water commitment that is expected to be settled within 12 months of the reporting date. Therefore, the management of Oliphant Reservoir would disclose it as a future water commitment in the notes to the general purpose water accounting report.

Illustrative example 3: Water received in advance

Dearn Water (Dearn) and Eyers Irrigation (Eyers) are both water report entities. Dearn announced an allocation of 15 000 ML of water per annum to Eyers. Under the allocation, Eyers is permitted to request a portion of its future allocations in the current year from Dearn. Any water received in the current reporting period relating to future reporting period allocations (water received in advance) will be settled by reducing the volume of water received in future reporting periods. In the current year, Eyers receives 25 000 ML of water that comprises 15 000 ML of water relating to the current year's allocation and 10 000 ML of water received in advance.

Is the item (water received in advance) a present obligation of Eyers arising from an obligating event? – Yes

The obligating event arose when Eyers received water in advance. As at the reporting date, the water received in advance of 10 000 ML represents a present obligation and will result in a reduction in the water received in future reporting periods.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its liabilities? – Yes

Eyers will effectively 'repay' the water received in advance by reducing the volume of water that it takes in future reporting periods.

Conclusion

Water received in advance represents a water liability of Eyers as it represents an allocation of water for a future reporting period that Eyers has received in the current period. As a result, Eyers will be entitled to a reduced volume of water in the next reporting period. To the extent that Eyers is able to quantify the volume of the water liability with representational faithfulness, it recognises the water received in advance as a water liability in the Statement of Water Assets and Water Liabilities.

Illustrative example 4: Unspecified extraction rights

McHugh Water (McHugh) is an urban water utility that is a water report entity. It supplies potable water to customers in an urban area. McHugh has an obligation to provide water to its customers according to a contract of service; however, the volume that McHugh supplies has not been agreed in advance. The users draw at will as much water as they need.

Is the item (the unspecified extraction rights) a present obligation of the water report entity arising from an obligating event? – No

As the contract of service does not specify the volumes to be delivered, by definition there are no 'undelivered volumes of water relating to the current or past reporting periods' as at the reporting date. Customers take water at will, and as such, any water liability that the urban water utility has to its customers is extinguished simultaneously.

Conclusion

The obligation to supply water in future reporting periods does not represent a present obligation and therefore is not a water liability of McHugh at the reporting date. Instead, the contract of service gives rise to a future water commitment that would be disclosed in accordance with AWAS 1 paragraphs 151–157.

Illustrative example 5: Capacity-sharing agreements

Brennan State Government (Brennan) has management responsibilities for Costello Reservoir (Costello) which has a maximum capacity of 10 000 000 ML. Kimmitt Irrigation (Kimmitt) holds the rights to 60% of the water storage in Costello Reservoir.

At the end of the year, the volume of water in the reservoir is 5 000 000 ML.

Is the item (Kimmitt's claim on water in Costello Reservoir) a present obligation of the water report entity (Brennan) arising from an obligating event? – Yes

Brennan has a present obligation to deliver or make available 60% of the water in Costello to Kimmitt.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its liabilities? – Yes

The discharge of the present obligation will result in a decrease in the water assets of Brennan.

Conclusion

To the extent that Brennan is able to quantify the volume of the water in the reservoir with representational faithfulness, it recognises 100% of the water in Costello Reservoir as a water asset in its Statement of Water Assets and Water Liabilities (water asset of 5 000 000 ML).

Brennan would also recognise a water liability for Kimmitt's rights to 60% of the water in the reservoir (3 000 000 ML).

Illustrative example 6: Continuous water accounting

Jones Water (Jones) is a water report entity. Jones has management responsibilities for the water storages in the State of McCormack. Jones has issued water rights with the following terms and conditions:

- right-holders are only able to carry over an allocation of 200 ML. Any volume in excess of this is forfeited;
- right-holders are only able to extract 120 ML per year; and
- right-holders are only able to extract a maximum of 300 ML over a three-year (rolling) period.

Jones made the following allocation announcements to Hanley Irrigation (Hanley) over a three-year period:

- Year 1: 100 ML
- Year 2: 100 ML
- Year 3: 120 ML.

Hanley made the following extractions:

- Year 1: 0 ML
- Year 2: 120 ML
- Year 3: 120 ML.

The following table summarises the allocations and extractions of Hanley:

Event/Year	Year 1	Year 2	Year 3
Allocation announcement	100	100	120
Extraction	(0)	(120)	(120)

Is the item (the undelivered water to Hanley) a present obligation of the water report entity arising from an obligating event? – Yes

The allocation announcements relating to Hanley represent obligating events for Jones for the following volumes:

- End of Year 1 – The amount of undelivered water relating to the current or past reporting periods is 100 ML.
- End of Year 2 – The amount of undelivered water relating to the current or past reporting periods is 80 ML.
- End of Year 3 – The amount of undelivered water relating to the current or past reporting periods is 80 ML.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity’s assets or an increase in its liabilities? – Yes

The delivery of water to Hanley will result in a decrease in the water assets of Jones.

Conclusion

The undelivered volumes of 100 ML, 80 ML and 80 ML at the end of Years 1, 2 and 3 respectively satisfy the definition of, and probable recognition criterion for, a water liability. Therefore, Jones recognises in its Statement of Water Assets and Water Liabilities a water liability for 100 ML, 80 ML and 80 ML at the end of Years 1, 2 and 3 respectively.

Although at the end of Year 3 only 60 ML of water is required to be settled within 12 months of the reporting date (calculated as the 300 ML maximum extractable volume over three years less the 240 ML already extracted for the past two years), 80 ML represents the ‘undelivered water relating to current or past reporting periods’. Therefore 80 ML is recognised as a water liability at the end of Year 3.

Illustrative Example 7: Groundwater overdraw

Hertel Water Corp (Hertel) has management responsibility for a groundwater resource (aquifer). The total volume of water in the aquifer when it is full is 1 700 ML. Historically, the aquifer has experienced an average annual net recharge of 500 ML per year. The Water Resource Management Instrument (WRMI) specifies that the aquifer should not fall below 1 400 ML. The WRMI also specifies water allocation limits on annual extraction that have been calculated to maintain the environmental water level criteria and leave sufficient groundwater through-flow to maintain the saltwater interface at the ocean. Given the average annual recharge of 500 ML per year, the original WRMI set the allocation limit at 300 ML per year. Accordingly, licensed allocations were issued by Hertel for a total of 300 ML per year.

With reduced annual recharge over recent years due to drought conditions, the extractions have resulted in the water level of the aquifer falling below the WRMI extractable level of 1 400 ML to 1 000 ML. This means that the aquifer has been 'overdrawn' by 400 ML.

Armour Department of Water (the Department) instructs Hertel to manage the aquifer in a manner that will restore the level of groundwater to the WRMI extractable level of 1 400 ML within a specified period. Hertel responds by revising the annual water allocation limits from 300 ML to 250 ML and introducing strategies to manage future allocations.

Does Hertel have a water liability for the groundwater overdraw?

Is the item (groundwater overdraw) a present obligation of the water report entity arising from an obligating event? – Yes

The requirement by the Department to restore the aquifer to 1 400 ML represents an obligating event. Hertel has no realistic alternative but to manage the restoration of the aquifer to the extractable limit level.

Is it probable that the discharge of the present obligation will result in a decrease in the water report entity's assets or an increase in its liabilities? – Yes

Hertel has no obligation to effect restoration through use of other water assets. There is no requirement for Hertel to undertake a managed aquifer recharge – Hertel can simply manage future allocations so that they are less than the natural recharge to cause the aquifer level to rise over time.

However, the 400 ML overdraw represents water taken in the current and prior reporting periods that Hertel is to 'repay' in the future.

Conclusion

The 400 ML overdraw meets the definition and recognition criteria for a water liability and is therefore recognised as a water liability in the Statement of Water Assets and Water Liabilities.

F. Prior period errors

AWAS 1 (paragraphs 43–46) requires that, when there is an error in a prior reporting period, the information for that reporting period is restated in subsequent general purpose water accounting reports.

This implementation guidance considers the following three situations:

Illustrative example 1:

A material transposition error occurred in a prior reporting period, e.g. presenting an incorrect volume in a general purpose water accounting report or presenting a volume in an incorrect line item in the general purpose water accounting report.

Illustrative example 2:

Due to an improved understanding of the water system, the quantification approach has been refined. Application of this refined approach in the prior reporting period would have resulted in a material change to the volume of a water asset.

Illustrative example 3:

The device used to quantify a volume has been upgraded. It is now apparent using this upgraded device that the volume recognised in the prior reporting period was materially misstated.

The guidance on prior period errors can be summarised into two key questions for identifying when a restatement of a prior period error is required. The table below shows the application of those questions for the three illustrative examples that follow.

Questions	Illustrative example 1	Illustrative example 2	Illustrative example 3
Omission from or misstatement in the prior report period?	Yes	Yes	Yes
Information about that omission or misstatement could reasonably be expected to have been obtained and taken into account in preparing the prior period report?	Yes	No, the information was reported according to the understanding of the system at the time	No, the information was not able to be accurately obtained in the prior period using the devices available at the time
Restatement of prior period required?	Yes See Example 1	No See Example 2	No See Example 3

Illustrative example 1: Transposition error in the prior reporting period

The following statements were provided for water report entity Hartley Water Ltd for 2X11:

Statement of Water Assets and Water Liabilities

as at 30 June 2X11

	Notes	2X11	2X10
Water assets		ML	ML
Major storage		2 100	1 000
Minor storage		240	200
Total water assets		<u>2 340</u>	<u>1 200</u>
Water liabilities			
Water to be delivered		120	80
Total water liabilities		<u>120</u>	<u>80</u>
Opening net water assets		1 120	1 420
Change in net water assets		1 100	(300)
Closing net water assets		<u>2 220</u>	<u>1 120</u>

Statement of Changes in Water Assets and Water Liabilities

for the year ended 30 June 2X11

	Notes	2X11	2X10
Water asset increases		ML	ML
Precipitation on storages		470	400
Runoff		12 500	15 000
Total water asset increases		<u>12 970</u>	<u>15 400</u>
Water asset decreases			
Transmission losses		850	1 050
Delivery of water		11 490	14 100
Unaccounted-for difference		(470)	550
Total water asset decreases		<u>11 870</u>	<u>15 700</u>
Change in net water assets		<u>1 100</u>	<u>(300)</u>

In reporting period 2X11, the report preparer learned that the volume disclosed for major storage in 2X10 (2 100 ML) was incorrect. The correct volume was 1 200 ML. The volume was incorrect because of a transposition error made when entering the volumes in the report. As a result, the 2X10 comparative information presented in the 2X11 general purpose water accounting report is restated as follows:

Statement of Water Assets and Water Liabilities

as at 30 June 2X11

	Notes	2X11	2X10
Water assets		ML	ML
Major storage	1	1 000	1 200
Minor storage		190	240
Total water assets		1 190	1 440
 Water liabilities			
Water to be delivered		40	120
Total water liabilities		40	120
 Opening net water assets		1 320	1 120
Change in net water assets		130	200
Closing net water assets		1 150	1 320

Statement of Changes in Water Assets and Water Liabilities

for the year ended 30 June 2X11

	Notes	2X11	2X10
Water asset increases		ML	ML
Precipitation on storages		380	470
Runoff		13 600	12 500
Total water asset increases		13 980	12 970
 Water asset decreases			
Transmission losses		1 000	850
Unaccounted-for difference	1	500	430
Total water asset decreases		1 500	1 280
 Water liability increases			
Announcement of delivery		12 350	11 490
Total water liability increases		12 350	11 490
 Change in net water assets		130	200

Note 1. Illustrative note disclosure of error correction

The volume disclosed for 'major storage' in the 2X10 water accounting statements prepared in 2X10 was incorrect due to a transposition error. This prior reporting period error has been corrected in the comparative information provided in the water accounting statements for 2X11. The changes are highlighted below:

	Previously reported 2X10	Restated 2X10	Change
Major storage	2 100	1 200	(900)
Unaccounted-for difference	(470)	430	900

Illustrative example 2: Quantification model refined after prior year general purpose water accounting report was issued

In reporting period 2X10, the following statements were provided for water report entity City of Pye:

Statement of Water Assets and Water Liabilities as at 30 June 2X10

	Notes	2X10	2X09
Water assets		ML	ML
Major storage		38 000	40 000
Distribution system		1 000	1 000
Total water assets		<u>39 000</u>	<u>41 000</u>
Opening net water assets		41 000	40 500
Change in net water assets		(2 000)	500
Closing net water assets		<u>39 000</u>	<u>41 000</u>

Statement of Changes in Water Assets and Water Liabilities for the year ended 30 June 2X10

	Notes	2X10	2X09
Water asset increases		ML	ML
Precipitation on storage		2 100	2 000
Runoff		80 400	75 300
Total water asset increases		<u>82 500</u>	<u>77 300</u>
Water asset decreases			
Evaporation		3 600	3 500
Sales to customers		65 900	58 700
Unaccounted-for difference		15 000	14 600
Total water asset decreases		<u>84 500</u>	<u>76 800</u>
Change in net water assets		<u>(2 000)</u>	<u>500</u>

In reporting period 2X11, the model used to quantify runoff was refined. Subsequently, the volume of runoff disclosed in 2X10 (80 400 ML) was more accurately understood to be 76 540 ML. While the inputs into the model were available at the time the 2X10 general purpose water accounting report was prepared, the refined model was not. As a result, the 2X10 comparative information presented in the 2X11 general purpose water accounting report is not restated.

**Statement of Water Assets and Water Liabilities
as at 30 June 2X11**

	Notes	2X11	2X10
Water assets		ML	ML
Major storage		39 025	38 000
Distribution system		1 000	1 000
Total water assets		40 025	39 000
Opening net water assets		39 000	41 000
Change in net water assets		1 025	(2 000)
Closing net water assets		40 025	39 000

**Statement of Changes in Water Assets and Water Liabilities
for the year ended 30 June 2X11**

	Notes	2X11	2X10
Water asset increases		ML	ML
Precipitation on storage		2 000	2 100
Runoff		78 425	80 400
Total water asset increases		80 425	82 500
Water asset decreases			
Evaporation		3 500	3 600
Sales to customers		62 500	65 900
Unaccounted-for difference		13 400	15 000
Total water asset decreases		79 400	84 500
Change in net water assets		1 025	(2 000)

Note disclosures:

To the extent that it is considered material, information about the refinement to the model should be disclosed in the note to the runoff line item. Because the less accurate runoff volume in the prior year would have contributed to the unaccounted-for difference for that reporting period, information about the refinement to the model would also be disclosed in the note to the unaccounted-for difference.

Illustrative example 3: Upgrade to metering system

The following statements were provided for Terracini Irrigation for 2X11:

Statement of Water Assets and Water Liabilities

as at 30 June 2X10

	Notes	2X10	2X09
Water assets		ML	ML
Rights to water		14 500	10 000
Distribution system		1 000	1 000
Total water assets		15 500	11 000
Opening net water assets		11 000	9 400
Change in net water assets		4 500	1 600
Closing net water assets		15 500	11 000

Statement of Changes in Water Assets and Water Liabilities

for the year ended 30 June 2X10

	Notes	2X10	2X09
Increases		ML	ML
Allocation announcement		95 000	83 000
Total increases		95 000	83 000
Decreases			
Irrigation diversion		72 200	63 850
Unaccounted-for difference		18 300	17 550
Total decreases		90 500	81 400
Change in net water assets		4 500	1 600

In reporting period 2X11, the metering system was upgraded by installing new meters, upgrading some existing meters, and relocating other existing meters. As a result, more accurate information became available about the split between volumes delivered and lost in transmission. In the light of this information, it became clear that the delivery and transmission loss volumes reported in last year's general purpose water accounting report were incorrect. While more accurate information about volumes existed at the time the 2X10 report was prepared, it was not able to be obtained using the metering system in place. As a result, the 2X10 comparative information presented in the 2X11 general purpose water accounting report is not restated.

**Statement of Water Assets and Water Liabilities
as at 30 June 2X11**

	Notes	2X11	2X10
Water assets		ML	ML
Rights to water		8 200	14 500
Distribution system		1 000	1 000
Total water assets		9 200	15 500
Opening net water assets		15 500	11 000
Change in net water assets		(6 300)	4 500
Closing net water assets		9 200	15 500

**Statement of Changes in Water Assets and Water Liabilities
for the year ended 30 June 2X11**

	Notes	2X11	2X10
Increases		ML	ML
Allocation announcement		83 000	95 000
Total increases		83 000	95 000
Decreases			
Irrigation diversion		75 000	72 200
Unaccounted-for difference		14 300	18 300
Total decreases		89 300	90 500
Change in net water assets		(6 300)	4 500

Note disclosures:

As a result of an upgrade to the metering system, the volume disclosed for 'unaccounted-for difference' in the 2X10 water accounting statements was subsequently understood to be incorrect. As this information was not available at the time the general purpose water accounting report was prepared, a retrospective correction was not required in the 2X11 water accounting statements. That the 2X10 runoff volume was not corrected is reflected in the reduced volume of water reported as 'unaccounted-for difference' in 2X11 compared to 2X10.

G. Segment reporting

Identification of segments

Paragraph 172 of AWAS 1 requires the disclosure of segment information when it is relevant to the decision-making of the users of the general purpose water accounting report. Paragraph 174 of AWAS 1 requires segments to be identified by considering the physical and administrative aspects of the water report entity.

The examples that follow illustrate the identification of segments:

Illustrative example 1: Multiple administrative arrangements

Meagher Water (Meagher) is a rural water authority with management responsibility for the Donnelly catchment area. The catchment area comprises the Donnelly River (a regulated river) and the Proudfoot River (an unregulated river). The Robinson and McHenry dams are located on the Donnelly River.

The Donnelly Water Resource Management Instrument 2X05 (WRMI) is the principal instrument for water sharing. The WRMI sets out environmental, social and cultural river flow objectives; the supply reliability objectives for the diversion of regulated surface water (the Donnelly River system); and the diversion and storage of unregulated surface water (the Proudfoot River). Meagher is responsible for managing the regulated and unregulated entitlement regimes and these are managed independently of each other.

Identification of segments

The management of Meagher has decided that the Donnelly River system and the Proudfoot River are two separate segments. This is on the basis that the two are independently managed by virtue of the different entitlement regimes relating to each. Further, management considers that users exist who would rely on discrete information for the different segments in making and evaluating decisions about Meagher. Accordingly, the general purpose water accounting report for Meagher Water includes segment information for the two segments.

Illustrative example 2: Multiple entities with water management responsibilities

The Cutler water supply system is a water report entity. The system covers the urban water distribution to the township of Cutler, the Mtenje River (which is the town's primary water supply) and the wastewater treatment plant.

The Cutler Water Authority has management responsibility for the urban water distribution system and the Mtenje River.

Wastewater Management has management responsibility for the wastewater treatment plant. The plant is located on Saffery River and it treats all the wastewater from the town of Cutler. A significant portion of the treated water is recycled to water public parks and gardens in order to reduce the load on the town's fresh water supply. All treated water that is not recycled is discharged into the Saffery River.

Identification of segments

The preparer of the general purpose water accounting report for the Cutler water supply system has decided that the Mtenje River system and the wastewater treatment plant are two separate segments. This is on the basis that the two serve different functions and are managed by different entities. Further, the report preparer considers that users exist who would rely on discrete information for the different segments for the purpose of making and evaluating decisions about the Cutler water supply system. For example, the local council and citizens of the town are interested in the management of the town's primary water supply (the Mtenje River) as well as the performance of the wastewater treatment plant. Accordingly, the general purpose water accounting report for the Cutler water supply system includes segment information for the two segments.

Illustrative example 3: Multiple locations

Abbey Water (Abbey) is a water utility with management responsibilities for a number of water supply systems within a state. Specifically, Abbey manages the supply of water to the townships of O’Kane, Ballat and Osburn. The water supply systems that supply water to each of the towns are managed independently of each other.

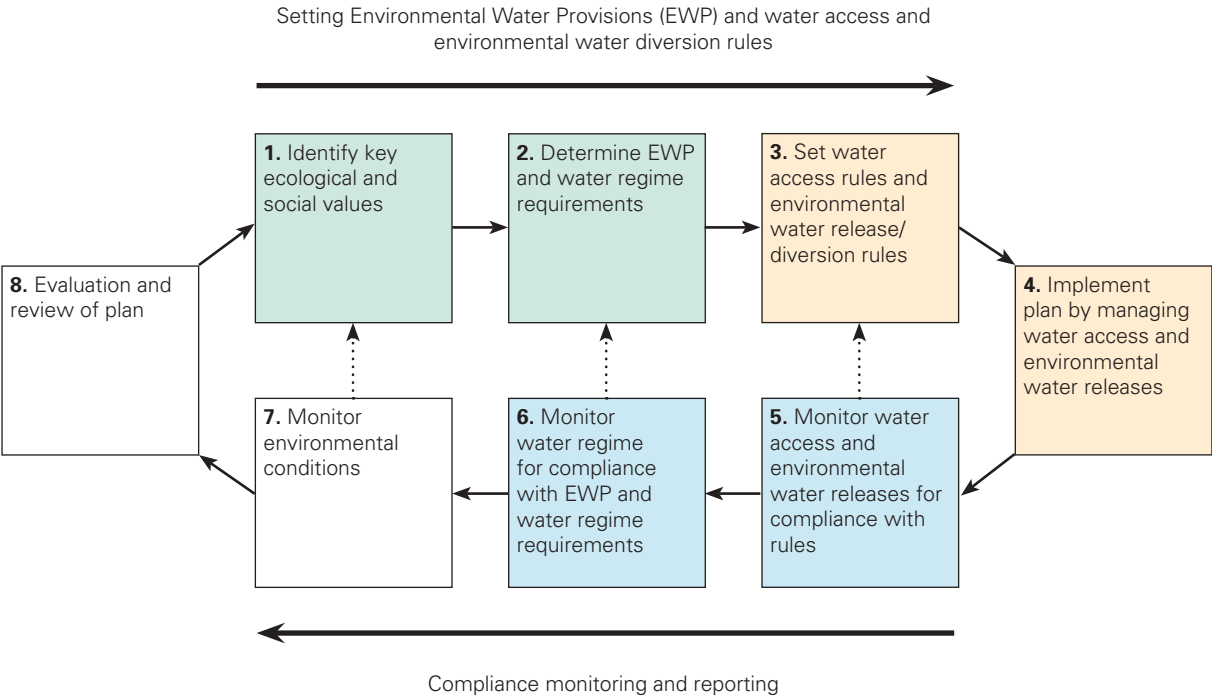
Identification of segments

The management of Abbey has decided that the three water supply systems supplying water to the three towns are three separate segments. This is on the basis that the three water supply systems are independently managed. Further, management considers that users exist who would rely on discrete information for the different segments for the purpose of making and evaluating decisions about Abbey. For example, the local councils and citizens of each of the towns are interested in the management of their respective water supply system. Accordingly, the general purpose water accounting report for Abbey includes segment information for the three segments.

H. Water for environmental benefit

While information on water for environmental benefit is likely to be included in various components of a general purpose water accounting report, this implementation guidance focuses on the information that might be disclosed in the notes. For the purposes of this guidance, environmental water is the water regime provided to achieve environmental outcomes.

The diagram below depicts a possible process for setting, monitoring and adjusting the way water is managed for environmental benefit.



Not all of the above needs to be reported in a general purpose water accounting report. A general purpose water accounting report aims to provide information that enables users to understand how water assets and water liabilities of the water report entity have been used during the reporting period in pursuit of environmental benefit. However, this does not include an assessment of the effectiveness of the environmental water regime in supporting the key ecological values or the appropriateness of the key ecological values.

Consequently, a general purpose water accounting report would provide the following information on water for environmental benefit:

1. Environmental water determinations
2. Environmental water commitments
3. Environmental water outcomes.

As can be seen from the illustrative examples that follow, the information required for environmental water determinations and environmental water commitments (boxes 2 and 3 in the diagram above) is intended to provide a summary of these two aspects. The summary should provide users with a basic understanding of the environmental framework. The third aspect (boxes 5 and 6 in the diagram above) relates to information about the environmental water outcomes that have occurred during the reporting period in accordance with the water access and water release rules and the environmental water provisions and water regime requirements.

This information is disclosed in the notes in accordance with paragraphs 168–169 of AWAS 1.

General purpose water accounting reports should make explicit the meaning of environmental water or water primarily for environmental benefit, particularly when multiple benefits of water are being reported on. This should be done as part of the description of administrative instruments, for example in the environmental water commitment section of the notes or in the Contextual Statement. The level of detail required will depend on the size, nature and complexity of the water report entity.

The illustrative examples present environmental disclosures for the following four broad environmental water management situations:

1. Planned partly regulated (or 'supplemented') surface water
2. Planned unregulated surface water
3. Planned groundwater
4. Held environmental water.

While the illustrative examples present the environmental disclosures in a structured fashion, this is for demonstration purposes only. Environmental disclosures would, in practice, be typically presented in a more integrated manner given that water regimes are often managed in an integrated way to achieve environmental outcomes.

Other sources of information about disclosures for water for environmental benefit

Some high-level guidance is provided on environmental disclosures in the Water Accounting Conceptual Framework (WACF) and AWAS 1. These include:

- The water accounting definition in the WACF (Glossary of Terms, Preface, p. 13).
- The objective of general purpose water accounting reports (AWAS 1 paragraphs 6–7).
- The requirements related to note disclosures on water for environmental benefit (AWAS 1 paragraphs 168–169).

In addition, some environmental disclosures are demonstrated in the illustrative general purpose water accounting reports accompanying AWAS 1. However, those examples focus mainly on held environmental water, and provide only limited guidance on planned environmental water. That limited guidance can be found in the following illustrative water accounting reports:

- Wallaroo Water System, pp. 62–64
- Energetico Hydro Corporation, pp. 33–36
- Terra Firma Water Supply System, pp. 39–40.

Demonstrations of held environmental water can be found in the following illustrative water accounting reports:

- Wallaroo Water System, p. 40
- Minton Environmental Water Holder, pp. 1–27.

Illustrative example 1: Planned partly regulated (or 'supplemented') surface water

The dominant feature of environmental water management in this situation is the ability to control or influence flow by operational releases from storage. There is a broad range of provisions in water resource plans aimed at meeting environmental water requirements, including minimum flow releases, transparent or translucent release patterns, event triggered releases, specified bulk transfer rates and limits on rise and fall in stream water levels. There may also be mid-system or end-of-system levels or flow targets and possible direct diversions to wetlands. Held environmental entitlements do not generally exist in these situations.

Framework for disclosing information about water for environmental benefit

1. Environmental water determinations:
 - a) Information on environmental objectives, environmental water provisions and water regime requirements including environmental flow targets (at end-of-system and mid-system locations).
 - b) References to more detailed information.
2. Environmental water commitments (rules in place):
 - a) Information on rules for environmental water storage releases and water access rules, including:
 - i) storage releases, which could include minimum flows, transparency releases, event triggered releases, inter-storage bulk transfers and mandated rates of rise and fall for rivers;
 - ii) relationship of trading rules to environmental water commitment; and
 - iii) control of interception activities (as an example farm dams and by-pass provisions).
 - b) References to more detailed information.
 - c) Information on the administrative regime (this information could be included in the Contextual Statement).
3. Environmental water outcomes (what actually happened):
 - a) Information about the extent of compliance with the environmental water provisions and water regime requirements.
 - b) Information about the extent of compliance with the rules for environmental water storage release such as:
 - i) direct diversions (for example to wetlands) and treatment of volumes stored in environmental assets;
 - ii) timing of direct diversions, and whether this resulted in overbank flows in particular months; and
 - iii) restriction of trading⁵ to support environmental water provisions.
 - c) Cross-reference to any relevant line items in the water accounting statements.
 - d) Disclosure of any material non-compliance with the water access rules.
 - e) References to more detailed information.
 - f) Information on compliance with environmental water outcomes (this information could be included in the Contextual Statement).

⁵ While information on trading may be included in the note on water for environmental benefit, it may also be included in the notes on water market activity or water rights, allocations and restrictions notes. To avoid duplication, this information should be included only in the note most relevant for users, with a cross-reference to this information included in the other notes.

Illustrative disclosure 1: Regulated system

Environmental water determinations

The water plan provides for the allocation and sustainable management of water within the Mitchell system. The water plan recognises that the natural state of the watercourses and lakes has changed because of water infrastructure, flow supplementation and the taking of water. It seeks to achieve a balance between sustaining the ecology of the system and consumptive needs of users.

The general objective of the water plan is to:

- maintain habitats of native plants and animals in watercourses and lakes;
- provide wet season flow to benefit native plants and animals in estuaries;
- maintain long-term water quality suitable for riverine and estuarine ecosystems;
- maintain existing geomorphic features and processes;
- maintain the capacity for one part of the river system to be connected to another through the continuous flow of water; and
- maintain ecosystem food chains, their balance and the movement of carbon.

The environmental water provision sets out the performance indicators for environmental flow objectives. The performance indicators assess:

Low flow	Medium to high flow	Seasonal flow	Baseflow
50% daily flow	Mean annual flow	Flow regime class	Daily flow less than 1 ML
90% daily flow	1.5-year daily flow volume	Annual proportional flow deviation	Daily flow less than 50 ML
Daily flow less than 1 ML	5-year daily flow volume	Mean wet season flow	
Number of periods of no flow	20-year daily flow volume		

Further information on the environmental flow objectives can be found in the Mitchell Water Plan

Environmental water commitments

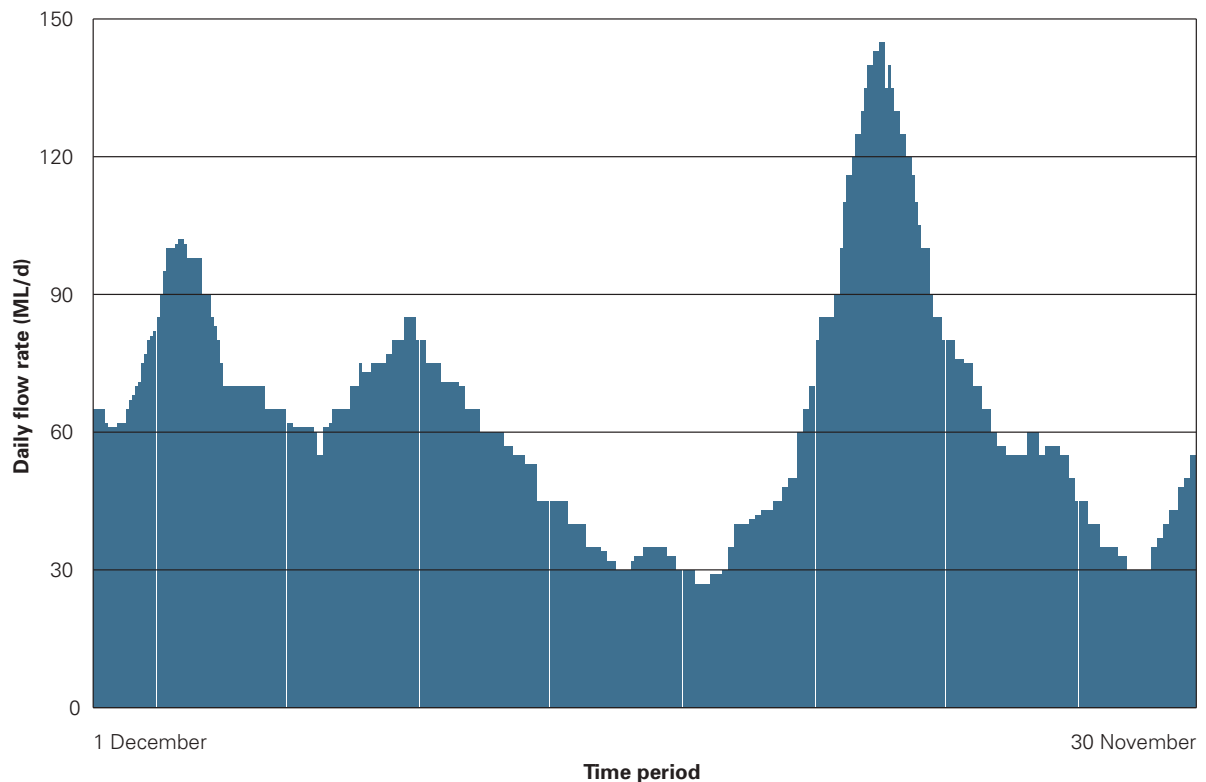
The Mitchell Operation Plan sets out the rules the licence holder must follow to help achieve outcomes of the Mitchell Water Plan. The Mitchell Operation Plan requires the licence holder to meet minimum flow rates by utilising a combination of regulating diversions from Potter Dam, natural flows, and releasing water from storages, subject to infrastructure limitations.

Season	Potter Dam storage volume	
	Greater than 80,000 ML	Less than 80,000 ML
December to March	Greater than 60 ML/day for at least 95 days	Greater than 5 ML/day for at least 105 days
	Greater than 5 ML/day for at least 105 days	
April to July	Greater than 5 ML/day for at least 10 days before the end of June	Greater than 5 ML/day for at least 105 days
	Greater than 500 ML/day for at least 10 days before the end of June	
August to November	Greater than 5 ML/day for at least 105 days	Greater than 5 ML/day for at least 105 days
	Greater than 115 ML/day for at least 20 days before the end of August	
	Greater than 20 ML/day for at least 100 days (with at least 51 days occurring before the end of September)	

Environmental water outcomes

During the reporting period 19 300 ML of water was released from Potter Dam. All releases from Potter Dam were made within the requirements of the Mitchell Operation Plan.

Season	Flow rate as measured from AA1535 gauging station	Days
December to March (Potter Dam above 80 000 ML)	Greater than 60 ML/day	118 days
	Greater than 5 ML/day	121 days
	Less than 5 ML/day	0 days
April to July (Potter below 80 000 ML)	Greater than 5 ML/day	122 days
	Less than 5 ML/day	0 days
August to November (Potter Dam above 80 000 ML)	Greater than 115 ML/day before the end of August	23 days
	Greater than 20 ML/day before the end of September	61 days
	Greater than 20 ML/day	122 days
	Greater than 5 ML/day	122 days



Annual stream flow for the reporting period at gauging station AA1535

Ecological monitoring programs are conducted as part of the Department for Environment's *Looking after our Rivers* program. The programs monitor water quality and local fauna and flora. Information on the programs can be found on the department's website: www.lookingafterourrivers.gov.au

Illustrative example 2: Planned unregulated surface water

The dominant feature of environmental water management in these situations is the reliance on controlling the water access regime to meet ecological water requirements. Unless there is some provision for environmental water diversions to wetlands, the only means of management control is to prevent or limit extraction in accordance with specified conditions under the water access regime. Typical conditions on access in water resource management plans include: ceasing pump flow triggers, commence pumping flow triggers such as for high flow diversion, by-pass conditions for farm dam operation and access restriction regimes perhaps governed by downstream (external) triggers.

Framework for disclosing information about water for environmental benefit

1. Environmental water determinations:
 - a) Information on environmental objectives, the environmental water provisions and water regime requirements.
 - b) References to more detailed information.
2. Environmental water commitments (rules in place):
 - a) Information on the rules covering environmental water diversions to wetlands and water access, including:
 - i) annual and long-term limits on use;
 - ii) externally triggered restrictions;
 - iii) flow triggers for restrictions;
 - iv) control of interception activities (including farm dams and by-pass provisions)⁶; and
 - v) the relationship of trading rules to environmental water.
 - b) References to more detailed information.
 - c) Information on the administration regime (this information could be included in the Contextual Statement).
3. Environmental water outcomes (what actually happened):
 - a) Information about the extent of compliance with the environmental water provisions and water regime requirements.
 - b) Information about the extent of compliance with the rules covering environmental water diversions to wetlands such as the timing of direct diversions and whether this resulted in overbank flows in particular months.
 - c) Cross-reference to any relevant line items in the water accounting statements.
 - d) Disclosure of any material non-compliance with the water access rules.
 - e) References to more detailed information.
 - f) Information on compliance with environmental water outcomes (this information could be included in the Contextual Statement).

⁶ While information on trading may be included in the note on water for environmental benefit, it may also be included in the notes on water market activity or water rights, allocations and restrictions. To avoid duplication, this information should be included only in the note most relevant for users, with a cross-reference to this information included in the other notes.

Illustrative disclosure 2: Unregulated system

Environmental water determination

Environmental water for the Noakes area is managed in accordance with the *Water Management Act 2000* (the Act) and is implemented by the Department of Scarce Resources (the Department). The Act requires a water sharing plan to be developed and that water be allocated for the health of the river and its dependent ecosystems, such as wetlands and floodplains.

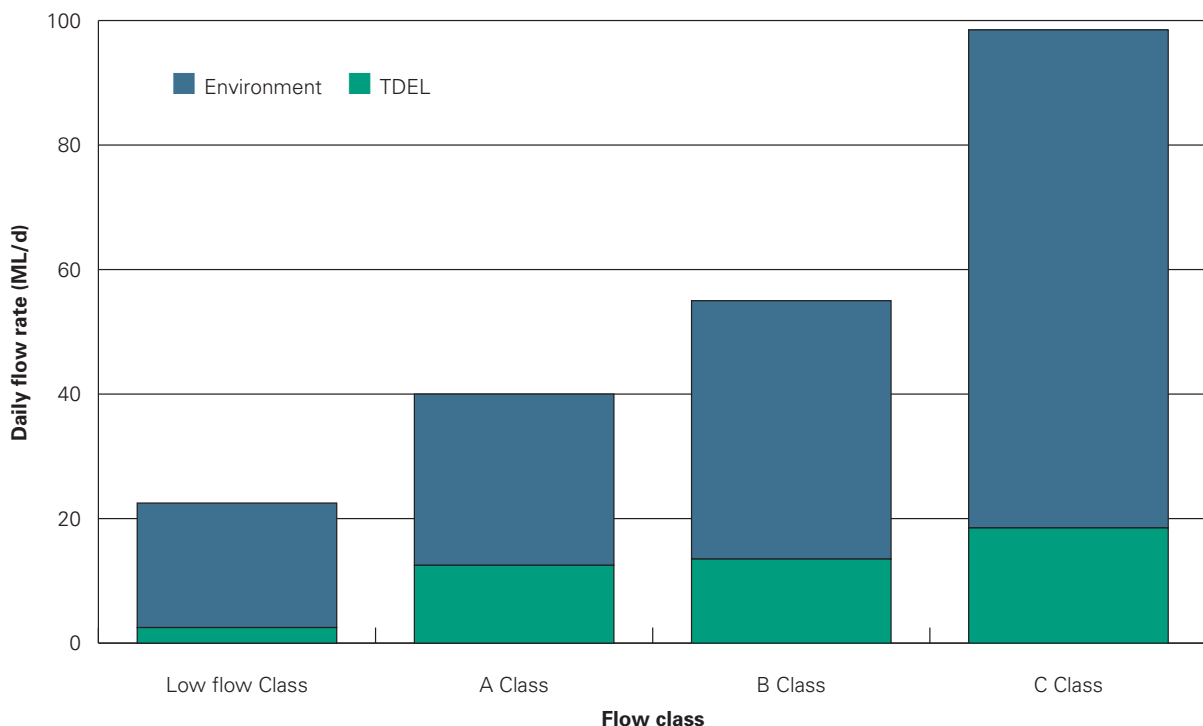
Reference to environmental water in the Act can be found at Division 2, subsection 8 – environmental water (www.scarceresources.gov.au).

Environmental water commitments

The water sharing plan for the Crowe River contains extraction limits for various flows or flow classes. These rules are designed to protect the variability of river flows and are important for river health as set out in the Act. The flow classes specify a maximum daily extraction limit. The flow classes in the Crowe River water source are:

Flow Class	Flow Range		Environment	Total Daily Extraction Limit
	End of system – Point A	Point B gauging station		
Low flow Class	<15 ML/day	<12 ML/day	approx up to 20 ML/day	2.5 ML/day
A Class	15 ML/day to 25 ML/day	12 ML/day to 20 ML/day	approx 27.5 ML/day	12.5 ML/day
B Class	25 ML/day to 38 ML/day	20 ML/day to 30 ML/day	approx 41.5 ML/day	13.5 ML/day
C Class	>38 ML/day	>30 ML/day	>41.5 ML/day	18.5 ML/day

The graph below illustrates the relationship between the water for the environment and the Total Daily Extraction Limit (TDEL).



Water trading within the Crowe River is permitted subject to metering of extractions to ensure assignments of water allocations take place. The main provisions for water trading are as follows:

- There is to be no net increase in the share component or extraction component in the Cisco Creek exclusion zone.
- Share components and water allocations may be traded with other water sources within the extraction management unit provided the water sharing plan for the other water source allows this.
- Share components may be traded from the Wallaroo regulated river water source to this water source.
- Individual daily extraction limits of unregulated river access licences can only be traded within the Crowe River water source.

Conversion factors for some trades may apply. The conversion factors are designed to protect the environmental health of the water source as well as protect other water access licences in the water source.

Environmental water outcomes

The Department undertakes periodic audits of compliance by water users with licence conditions. This includes assessing compliance with pumping restrictions to ensure equitable access for both water users and the environment.

During the reporting period five licence holders were identified as not complying with their licence conditions, having pumped more water than permitted during a period of low flows. Information in relation to the non-compliance can be found at Note 7: Water rights, water allocations and water restrictions.

The Department has an ecological monitoring program to assess the rules contained in the water sharing plan for protecting the river processes and to inform them on future water extraction limits. The program comprises four parts: low flow running water habitats; river refugia; fish passage; and predictive ecological modelling. For further information on the ecological monitoring program visit: www.scareresource.gov.au/monitoring.

Water trading was only introduced in the Crowe River water source in 2X10. During the current reporting period no trades had occurred.

Illustrative example 3: Planned groundwater

Environmental water management in this situation focuses on planned and physically unregulated groundwater provisions. This includes groundwater dependent ecosystems such as wetlands that are artificially maintained. However, it does not include groundwater systems with artificial aquifer storage and recovery, as these are regarded as planned regulated systems and are held environmental groundwater.

The dominant feature of environmental water management in these situations is the reliance on controlling access to water to meet environmental water provisions and maintaining groundwater levels at specified locations (bores). This effectively determines a minimum allowable groundwater level, below which groundwater levels are not intended to fall. Management approaches may vary from simple 'cease to pump' agreements to complex rules involving measures such as limits on rates of extraction, restriction policies, local drawdown limits, buffers for groundwater dependent ecosystems, transitional access arrangements, or the need for supplementary diversions from groundwater or surface water sources to protect ecological assets such as wetlands in critical circumstances. The greatest difficulty, however, is the basis on which to set annual extraction limits in groundwater systems whose long-term behaviour is substantially affected by periodic long dry sequences or climate change.

Framework for disclosing information about water for environmental benefit

1. Environmental water determinations:
 - a) Information on environmental objectives, the environmental water provisions and water regime requirements including aquifer levels, pressure and water table drawdown limits to maintain dependent ecosystems.
 - b) References to more detailed information.
2. Environmental water commitments (rules in place):
 - a) Information on the environmental rules covering water accesses and diversions to wetlands, including:
 - i) long-term and annual limits on use;
 - ii) complex, multi-user access regimes, which may include rates of extraction, usage levels, and restrictions;
 - iii) simple, single user access regimes with cease to pump trigger rules;
 - iv) transitional access provisions (for example, to manage usage down to sustainable levels over several years);
 - v) supplementary diversions to wetlands from groundwater or other sources;
 - vi) buffer zones to protect groundwater dependent ecosystems and between extraction bores; and
 - vii) the relationship between trading rules and environmental water.
 - b) References to more detailed information.
 - c) Information on the administrative regime (this information could be included in the Contextual Statement).

3. Environmental water outcomes (what actually happened):
 - a) Information about the extent of compliance with environmental water provisions and water regime requirements including disclosure of groundwater levels that fall below the minimum allowable groundwater limits.
 - b) Information about the extent of compliance with the environmental water diversions to wetlands such as:
 - i) direct extractions to wetlands; and
 - ii) timing of direct diversions.
 - c) Cross-reference to any relevant line items in the water accounting statements.
 - d) Disclosure of any material non-compliance with the water access rules.
 - e) References to more detailed information.
 - f) Information on compliance with environmental water outcomes (this information could be included in the Contextual Statement).

Illustrative disclosure 3: Planned groundwater

Environmental water determination

The Environment Water Plan (EWP) for the Listy groundwater management area has been formalised as Ministerial criteria under the *Environmental Protection Act 1986* (the Act). The current Ministerial statement details Ministerial conditions that the Department for the Environment (the Department) must meet, including minimum water levels to be maintained at monitoring bores and wetlands.

The Ministerial statement sets out the following minimum water levels before pumping is to cease:

Groundwater monitoring well	Minimum (mAHD)
MM16	38.8
MM18	38.6
MM49B	24.7
PM16	33.3
PM98	29.5
PM50	36.3
WB1	40.5
WB8	58.3
WB16	64.8

For a copy of the Ministerial criteria under the Act visit: www.environment.gov.au

Environmental water commitments

The groundwater area allocation plan sets out the rules the Department complies with in applying the Act's Ministerial criteria.

The Department's groundwater allocation plan:

- summarises the groundwater dependent ecological, cultural and social values;
- sets out how water for the environment is managed;
- outlines the environmental and groundwater level monitoring programs; and
- sets management triggers and responses, including those relating to compliance with environmental criteria.

The Department uses variable groundwater abstraction rules to set annual groundwater allocations for the groundwater system. The allocations depend upon available surface water assets but are also based on a sustainable abstraction target of 50 GL per year and a maximum allocation (under exceptional circumstances) of 55 GL per year.

Environmental water outcomes

During the reporting period, water levels complied with Ministerial criteria at eight sites. The site that did not comply was within half a metre of the criteria level. The site that did not comply with the EWP was a site where the ecological values have been shown to no longer exist due to impacts on water levels by climate and/or land use, which are outside the control of the Department. A review of the EWP to better reflect understanding of ecological values and impacts of water level declines, increasing groundwater abstraction, land use change and administrative changes has been completed by the Department and is currently pending approval by the Minister.

The end of summer monitoring of wetland vegetation found little evidence of short-term negative impacts. However, longer-term drying trends, such as encroachment of terrestrial species into the wetlands, were evident. Wetland macroinvertebrates and water quality is monitored at nine wetland sites. Monitoring results are consistent with previous years. For the majority of wetlands, the relationship between macroinvertebrate richness and water levels has yet to be determined, though there is some evidence to suggest the richness in macroinvertebrate increases with increasing water levels.

Water quality is, however, of increasing concern. Acidification is evident at Lake Buttenshaw and Lake Komor, where pH levels of less than four were recorded. The exposure of acid sulphate soils due to lowered water levels is likely to be the major cause.

Sampling for aquatic invertebrates and recording of water levels and water quality was undertaken in five caves. Water levels in the caves were generally very low compared to historical levels. Reticulation systems in the caves have resulted in an improvement in the condition of root mats in some caves. There is no evidence of deterioration in water quality from previous years.

Illustrative example 4: Held environmental water

The dominant feature of environmental water management in this situation is the ability to control or influence flow by operational releases from storage and the use of environmental water entitlements to manage the environmental water provisions. This primarily occurs in regulated or partly regulated surface water systems, although it is possible to hold environmental water entitlements in a groundwater system with artificial aquifer storage and recovery.

In some, but not all, cases environmental objectives and environmental water provision water regime requirements are determined for the surface water system. In most cases an annual environmental watering plan is prepared at the start of the water year to guide the environmental water releases to be made during the water year. The environmental water entitlements are held by an environmental water manager, who is also responsible for preparing the annual environmental watering plan and calling for the environmental water releases when required.

Framework for disclosing information about water for environmental benefit

1. Environmental water determinations:
 - a) Information on environmental objectives, environmental water provisions and water regime requirements. Depending on the water report entity, it may be necessary to provide more detailed information such as:
 - i) identifying sites where objectives are measured; and
 - ii) describing the water regime applied for each site.
 - b) References to more detailed information.
2. Environmental water commitments (rules in place):
 - a) Information on the annual environmental watering plan, including:
 - i) water entitlements held for the environment;
 - ii) whether entitlements are held by a jurisdictional environmental water holder, the Commonwealth, the Murray–Darling Basin Authority or another party;
 - iii) environmental water allocations;
 - iv) environmental water releases;
 - v) environmental water trade; and
 - vi) environmental watering decision framework.
 - b) References to more detailed information.
 - c) Information on the administration regime (this information could be included in the Contextual Statement).
3. Environmental water outcomes (what actually happened):
 - a) Information about the extent of compliance with environmental water provisions and water regime requirements.
 - b) Information about the extent of compliance with annual environmental watering plans such as:
 - i. direct diversions (for example, to wetlands) and treatment of volumes stored in environmental assets;
 - ii. timing of direct diversions and whether this resulted in overbank flows in particular months; or
 - iii. trading.
 - c) Cross-reference to any relevant line items in the water accounting statements.
 - d) References to more detailed information.
 - e) Information on compliance with environmental water outcomes (this information could be included in the Contextual Statement).

Illustrative disclosure 4: Held water

Environmental water determinations

The environmental water holder (EWH) prepares the annual watering plan for approval by the Minister three months before the commencement of the water year. The watering plan identifies priority sites and the objectives of each site. In the current reporting period, Benson River has been identified as a priority site with the following objectives:

- improve habitat for aquatic species;
- maintain fish passage;
- assist in the spawning and migration of priority fish species; and
- avoid deterioration of water quality.

The EWH issues determinations on when and how much water will be released to meet the environmental objectives. Moeck catchment authority is responsible for implementing the environmental determinations. Moeck catchment authority is also responsible for monitoring natural flows and providing advice to the EWH on when to make the releases to maximise environmental benefits.

Environmental water commitments

The seasonal water plan anticipated a positive watering season, with full allocations available and a wet catchment in spring. It was further anticipated that flow components could be provided under the wet scenario, except in summer and autumn. The following table outlines the priorities of the current reporting period.

The bulk entitlements for the Benson River are held in Linehan Reservoir which is operated by Moeck catchment authority. The entitlement held is for 10 000 ML.

Description	Planning scenario		
	Dry	Average	Wet
Expected flow conditions	Low storage inflows, high irrigation demand, minimal unregulated flows	Average storage inflows, average irrigation demand, some unregulated flows	High storage inflows, low irrigation demand, high volume of unregulated flows.
Expected available allocation	3 100 ML	7 900 ML	10 000 ML
Environmental objectives	Provide habitat and migration opportunities for native fish	Provide habitat and migration opportunities for native fish Provide spawning opportunities for Australian grayling	Provide habitat and migration opportunities for native fish Provide spawning opportunities for Australian grayling Provide opportunities for fish movement and maintain substrate condition
Flow components	Winter baseflow	Autumn freshes Winter baseflow	Autumn freshes Winter baseflow

A copy of the seasonal water plan for the Benson River is located at www.ewh.gov.au/bensonriver

Environmental water outcomes

During the reporting period the EWH received an allocation of 100% against its bulk entitlement of 10 000 ML. Conditions, as anticipated, in the Benson River were positive and allowed the EWH to implement the wet planning scenario.

During the reporting period, the following releases were made from the Linehan Reservoir in line with the determinations issued by the EWH:

Month	Flow type	Total volume per day*	Number of days	EWH allocation used	Determination no.
March	Autumn freshes	350 ML per day	5 days	1 200 ML	AA12031511
April	Autumn freshes	350 ML per day	5 days	1 000 ML	AA12033125
June–July	Winter baseflows	200 ML per day	61 days	4 000 ML	AA12052533
December	Summer freshes	320 ML per day	3 days	1 200 ML	AA12120635
January	Summer freshes	320 ML per day	3 days	1 200 ML	AA13011101
February	Summer freshes	320 ML per day	3 days	1 400 ML	AA13021007

* Total volume per day included a combination of natural flows and releases from the EWH bulk entitlement.

The Department of Environment and Mining conducts regular environmental flow monitoring and ecosystem responses to environmental flows. The program monitors fish, vegetation, physical habitat, and water quality responses to environmental flows. Information on the programs can be found on the Department’s website: www.deam.gov.au/rivermonitoring



Basis for Conclusions



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Introduction

- B1. The Water Accounting Standards Board (WASB) is responsible to the Director of Meteorology for developing Australian Water Accounting Standards.
- B2. This Basis for Conclusions summarises the considerations of the WASB in reaching its conclusions in Australian Water Accounting Standard 1: *Preparation and Presentation of General Purpose Water Accounting Reports* (AWAS 1).

Background information

Water accounting and the National Water Initiative

- B3. One of the objectives of the National Water Initiative (NWI) is to standardise the practice of water accounting in Australia so that consistent and comparable information is available to decision-makers at:
 - a) the national level for policy development;
 - b) the jurisdictional level for water resource planning and monitoring;
 - c) the water organisation level for water resource management;
 - d) the site level for on-site water management; and
 - e) the individual level for making decisions about the allocation of resources.
- B4. The *SKM Stocktake Report on Water Accounting* (2006), commissioned by the parties to the NWI, recommended an approach to developing water accounting standards based on that used for financial reporting. In late 2006, the parties to the NWI established the National Water Accounting Development project (NWADp) to progress such an approach.
- B5. The NWADp has primarily involved considering user requirements, developing a Water Accounting Conceptual Framework (WACF) and capacity building within the States and Territories through practical pilot testing projects. The WACF forms the foundation for developing Australian Water Accounting Standards. AWAS 1 prescribes the basis for preparing and presenting general purpose water accounting reports.
- B6. Under the Commonwealth *Water Act 2007*, the Director of Meteorology has the power to issue water information standards, including water accounting standards.
- B7. AWAS 1 prescribes the basis for preparing and presenting a general purpose water accounting report, which comprises the following components:
 - a) a Contextual Statement;
 - b) an Accountability Statement;
 - c) a Statement of Water Assets and Water Liabilities;
 - d) a Statement of Changes in Water Assets and Water Liabilities;
 - e) a Statement of Water Flows; and
 - f) note disclosures.
- B8. AWAS 1 was developed based on the concepts in the WACF and sets out:
 - a) the definitions of the water accounting elements (water assets, water liabilities, changes in water assets, changes in water liabilities and net water assets);
 - b) the recognition criteria for those elements;
 - c) the quantification attribute and unit of account for those elements; and
 - d) disclosure requirements.

Development of AWAS 1

- B9. AWAS 1 was developed following due process that involved:
- a) the National Water Accounting Development project pilot program;
 - b) development of the Preliminary Australian Water Accounting Standard (PAWAS) and the Water Accounting Conceptual Framework (WACF) and consideration of stakeholder comments on the PAWAS and WACF;
 - c) reference to other stakeholder engagement programs; and
 - d) development of the Exposure Draft of Australian Water Accounting Standard 1 (ED AWAS 1) and consideration of stakeholder comments on the ED AWAS 1.

Terrestrial water resource management

- B10. While water accounting tracks and reports stocks and flows of water during the terrestrial phase of the water cycle, it does not account for water in the marine or aerial phases of the water cycle. The focus of water accounting is on water that is fit for purpose, whether that is environmental, social, cultural or economic.
- B11. Terrestrial water resource management can be separated into physical and administrative aspects.
- B12. Physical aspects involve managing all natural sources of water in the terrestrial water phase including catchment runoff and water in aquifers, streams, wetlands and estuaries. All of the human activities that affect the stocks and flows of water are also encompassed. This includes activities such as the regulation of rivers through the storage and controlled release of water storages behind dams, the extraction of groundwater, the diversion of surface water from unregulated streams, the interception of surface runoff in minor catchment storages, the diversion of surface water from regulated rivers and its distribution to customers via rural or urban supply networks, the collection of irrigation drainage or urban wastewater and its recycling or return to rivers, and the desalination of sea water and its connection into urban water storages or supply networks.
- B13. Water in the terrestrial water phase is neither created nor destroyed but can be transformed between solid, liquid and gaseous form, for example as it leaves the terrestrial phase via evaporation. Water accounting uses litres as the unit of volumetric quantification and covers all water transactions that can be included in comprehensive water balance presentations. There will, however, be practical limitations to which water transactions can be included in general purpose water accounting reports, based on considerations of materiality and representational faithfulness. The movement of water into and out of the terrestrial water phase is within the scope of water accounting and will appear as inflows to, or outflows from, water report entities.
- B14. Administrative aspects of terrestrial water resource management are embedded in public policy, legislation, administrative regulation and water resource management instruments such as water sharing plans. Water sharing plans are typically legal instruments that are the basis of sharing water between environmental, economic and social needs. A water sharing plan will typically be based on environmental flow and extractive entitlement reliability objectives. It will also establish management tools such as operational rules, allocation or restriction methods and trading rules when tradability is an attribute of entitlements. Water sharing plans are progressively being developed or reviewed and updated across Australia, with priority being given to areas assessed as having the highest need for active management of water resources.
- B15. The water resource management instruments that administer the taking and use of water hold various forms and have varying degrees of sophistication. They are created from a variety of processes, are titled differently and reflect the priority and water management resources available at the time of their development and creation. They also vary in substance depending largely on the state of underpinning technical knowledge of water source or resource characteristics at the time of their development and creation. These instruments generally apply to a specific source or sources

of water; they frequently have common features related to the type of water source but often also have unique provisions. They have traditionally separated the management of surface water and groundwater, although a shift to more integrated water planning and management is underway.

- B16. The particular concepts and instruments administering the taking and use of water are wide ranging. Sophisticated entitlement regimes can include multiple entitlement types with different reliability and tradability attributes. They can also involve regular allocation determinations and announcements, trading of entitlements and both trading and carryover of annual allocations. Alternatively they may involve continuous sharing of available water allocations and losses and can include controls such as annual caps. Licensing regimes with restriction methods are relatively common for groundwater and unregulated stream sources. Private rights to access water for specified purposes such as domestic and stock watering and even event-based sporadic permits are also part of the range of instruments.
- B17. There are also many ways in which management functions, and roles and responsibilities are assigned among organisations and individuals both between and within Australia's jurisdictions. An appreciation of both the physical and administrative aspects of water resource management applicable to a water report entity is necessary to facilitate the usefulness of general purpose water accounting reports.

Objective of general purpose water accounting reports (paragraphs 6–7)

- B18. Consistent with the WACF, the ED AWAS 1 proposed that the objective of general purpose water accounting reports should be to provide information to users that would be useful in making and evaluating decisions about the allocation of resources.
- B19. The ED AWAS 1 further proposed that the objective of general purpose water accounting reports should be to provide information that would be useful in understanding and evaluating the accountability of managers, management groups or governing bodies of the water report entity for the water assets and water liabilities of the water report entity.
- B20. After considering respondents' comments to the ED AWAS 1, it was agreed that the objective of general purpose water accounting reports contained in AWAS 1 should be consistent with the objective contained in the WACF. The WASB therefore decided to make no reference to understanding the accountability of management in AWAS1. As a result, the objective contained in AWAS 1 relates only to information that is useful in making and evaluating decisions about the allocation of resources.
- B21. The WASB further noted that understanding the accountability of management, as proposed in the ED AWAS 1, was subsumed in the broader objective of decision usefulness and was therefore not necessary. The WASB also agreed that, based on respondents' comments, additional grey letter guidance should be included in AWAS 1 to further clarify the objective of general purpose water accounting reports and their connection with resource allocation decisions.
- B22. Also consistent with the WACF, AWAS 1 adopts a water report entity¹ concept that is tied to the information needs of users. Accordingly, general purpose water accounting reports are required to be prepared for a water entity when it is reasonable to expect the existence of users who are:
- a) dependent on water accounting reports for information about water, or rights or other claims to water, which will be useful to them for making and evaluating decisions about the allocation of resources; and
 - b) unable to command the preparation of special purpose water accounting reports to satisfy their information needs.

¹ This is referred to as a 'water reporting entity' in the WACF.

General features of general purpose water accounting reports

Accrual basis of water accounting (paragraphs 21–22)

- B23. With the exception of water flow information, AWAS 1 requires general purpose water accounting reports to be prepared using the accrual basis of water accounting.
- B24. Applying the accrual basis of water accounting means that the effects of transactions, transformations and events are recognised when the decisions or commitments that give rise to them occur. This may not necessarily be the time at which water is physically transacted, transformed or subject to some other event. Accrual accounting ensures that transactions, transformations and events are recorded in the Statement of Water Assets and Water Liabilities and the Statement of Changes in Water Assets and Water Liabilities in the reporting periods to which they relate. General purpose water accounting reports prepared on an accrual basis therefore inform users not only of past transactions, transformations or events involving the physical transfer or transformation of water, but also of present obligations to transfer or transform water in the future and of rights that represent water to be transferred to the water report entity in the future.
- B25. The WASB therefore concluded that preparing general purpose water accounting reports using an accrual basis of water accounting would provide information about past transactions, transformations and events that would be most useful to report users in making and evaluating decisions about the allocation of resources.

The distinction between the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows

- B26. There is an important distinction between the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows. The former is prepared on an accruals basis and provides information on all transactions, transformations and events that give rise to changes in water assets and water liabilities during the reporting period, irrespective of whether those transactions, transformations or events represent physical water flows. The latter provides information on transactions, transformations and events only when they give rise to physical water flows during the reporting period. The distinction between the two statements is illustrated in the treatment of unused allocation, which represents volumes of water that the management of a water report entity is obliged to deliver at the reporting date as a consequence of an allocation determination and announcement before the end of the reporting period under a water sharing plan. The unused allocation is recognised as a water liability at the reporting date, and the balance of this liability changes from one reporting period to the next as a result of the following events:
- it is increased as a result of allocation determinations and announcements made during the reporting period;
 - it is decreased as a result of the physical water outflows to settle allocations; and
 - it may be increased or decreased by other events such as evaporation adjustments applied to allocation carryover in accordance with a water sharing plan.

The Statement of Changes in Water Assets and Water Liabilities reflects the impact of each of these events.

B27. For example, assume that a water entity has allocation carryover at the beginning of the reporting period of 40 000 ML. That allocation carryover is recognised as an unused allocation water liability in the Statement of Water Assets and Water Liabilities. Further assume that:

- a) an allocation determination and announcement is made during the reporting period of 150 000 ML; and
- b) 135 000 ML of water is physically transferred during the reporting period to settle both the carryover obligation and part of the current reporting period allocation.

Accordingly, the balance of the unused allocation liability at the end of the reporting period is 55 000 ML, calculated as follows:

Carryover obligation at beginning of the reporting period	40 000 ML
<i>add</i> allocation determination and announcement made during the reporting period	150 000 ML
<i>less</i> allocation settled during the reporting period	<u>(135 000 ML)</u>
Carryover obligation at the end of the reporting period	<u>55 000 ML</u>

The recognition of these events in the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows is as follows:

	Statement of Changes in Water Assets and Water Liabilities	Statement of Water Flows
Water decreases		
Allocation diversion	135 000 ML	
Change in unused allocation	15 000 ML	
Water outflows		
Allocation diversion		135 000 ML
Total water decreases	150 000 ML	
Total water outflows		135 000 ML

The following points are noteworthy:

- a) AWAS 1 prescribes 'water asset decreases' and 'water outflows' as the minimum line items in the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows respectively. The additional line items of 'allocation diversion' and 'change in unused allocation' have been included in the above table.
- b) Allocation diversion represents the take, delivery or the physical water outflows to settle announced allocations (135 000 ML).
- c) Change in unused allocation represents the difference between the announced allocation volume for the reporting period and the volume of water actually taken or delivered (150 000 ML – 135 000 ML = 15 000 ML).
- d) The Statement of Changes in Water Assets and Water Liabilities is prepared using the accrual basis of water accounting and reflects the impact of both the allocation determination and announcement and the physical water outflows. In contrast, the Statement of Water Flows reflects only the physical water outflows.
- e) At the end of the reporting period, the Statement of Water Assets and Water Liabilities, also prepared using the accrual basis of water accounting, would include as a water liability an unused allocation of 55 000 ML.

B28. Similarly, the distinction between the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows is illustrated in the treatment of water rights or other claims to water. For example, assume a water entity with an entitlement to receive 100 000 ML is provided an 80% allocation. During the reporting period, the entity calls upon 60 000 ML of the 80 000 ML associated with this allocation.

Accordingly, the balance of the water rights asset at the end of the reporting period would be 20 000 ML, calculated as follows:

Water rights at beginning of the reporting period	0 ML
<i>add</i> allocation provided during the reporting period	80 000 ML
<i>less</i> amount called upon during the reporting period	(60 000 ML)
Water rights at the end of the reporting period	20 000 ML

The physical inflow of 60 000 ML of water is recognised in the Statement of Water Flows, whereas the Statement of Water Assets and Water Liabilities reflects both the allocation of 80 000 ML and the water inflow of 60 000 ML, producing a change in the balance of the water rights asset of 20 000 ML.

- B29. Some respondents to the ED AWAS 1 commented that the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows should not always both be required. For example:
- a) if a water report entity has only physical flows of water and no accruals, the Statement of Water Flows should, on its own, be sufficient to provide users with information about all transactions, transformations and events that give rise to changes in water assets and water liabilities during the reporting period; or
 - b) if a water report entity has no physical flows of water and the changes in its water assets and water liabilities relate only to accruals, the Statement of Changes in Water Assets and Water Liabilities should, on its own, be sufficient to provide users with information about all transactions, transformations and events that give rise to changes in water assets and water liabilities during the reporting period; or
 - c) if a water report entity has immaterial accruals relative to physical flows or, conversely, primarily holds rights to water, resulting in limited or immaterial physical water flows, it may be appropriate for the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows to be combined and presented as a single statement.
- B30. The WASB agreed that in certain circumstances users may not require both the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows to have sufficient information for making and evaluating decisions about the allocation of resources. The WASB concluded that amending the proposals in the ED AWAS 1 to reflect these comments would not be in conflict with the WACF, in particular with the objective of general purpose water accounting reports.
- B31. The WASB similarly agreed that in certain circumstances it may be appropriate to combine the Statement of Water Assets and Water Liabilities and the Statement of Water Flows into a single statement to improve the understandability of the general purpose water accounting report.
- B32. In considering this issue, the WASB noted that the WACF was not intended to be prescriptive as to the presentation of each of the statements and that combining and presenting as a single statement the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows would not be inconsistent with the WACF.

B33. The WASB therefore decided to include in AWAS 1 additional guidance clarifying the circumstances in which a statement need not be presented or in which two statements could be combined and presented as a single statement, provided such presentation does not abrogate other principles of AWAS 1, particularly those related to understandability and fair presentation.

Materiality (paragraphs 23–27)

B34. Some respondents to the ED AWAS 1 proposed that explicit references to the concept of materiality should be included in the sections of the Standard dealing with sub-classification of line items in the water accounting statements and the disclosure of non-adjusting events after the end of the reporting period. The WASB noted that materiality is an overarching concept relevant to the application of all aspects of general purpose water accounting. The WASB concluded that including explicit references to materiality in only these two sections would have the potential to cause confusion over its application in all other circumstances.

Comparative information (paragraphs 31–39)

B35. AWAS 1 requires the provision of comparative information within a general purpose water accounting report to enable users to compare the nature and volumes of water assets and water liabilities of a water report entity, and changes in those water assets and water liabilities, over time.

B36. AWAS 1 therefore:

- a) requires comparative information for all volumes for the immediately preceding reporting period; and
- b) clarifies that comparative information for earlier reporting periods should be presented when it is relevant to an understanding of the current reporting period's general purpose water accounting report.

Error corrections (paragraphs 43–46)

B37. Material errors may not be discovered until after a general purpose water accounting report has been issued. To facilitate comparability, the presentation and classification of items in a general purpose water accounting report should be consistent from one reporting period to the next. The WASB concluded that consistent with this, correcting prior reporting period errors would enhance inter-period comparability of information. AWAS 1 therefore provides explicit guidance on the correction of prior reporting period errors.

B38. To assist in the application of these principles, AWAS 1 also includes implementation guidance for report preparers.

Quantification (paragraphs 51–54)

B39. The elements of general purpose water accounting reports often possess more than one attribute that can be quantified. Quantifiable attributes of water assets, water liabilities, net water assets and changes in balances of water assets and water liabilities include volume, salinity or monetary value.

B40. An attribute of an element may be quantified using different units of account. For example, the volume of water assets may be quantified in litres or cubic metres. A water quality attribute such as the salinity of water assets may be expressed in units of account such as milligrams of dissolved solid per litre or microSiemens per centimetre ($\mu\text{S}/\text{cm}$) at 25 °C.

B41. Consistent with the objectives of the NWI related to water resource planning, monitoring, management and policy development (see paragraph B3), AWAS 1 specifies volume as the quantification attribute for items included in water accounting statements. The WASB concluded however, that it would be appropriate to require information about other attributes of an element to be disclosed when that information is relevant to an understanding of the current reporting period's general purpose water accounting report.

Contextual Statement (paragraphs 56–61)

- B42. The WASB’s deliberations included consideration of whether AWAS 1 should be detailed about the information to be provided in the Contextual Statement or identify the themes or concepts the statement should cover. The WASB concluded that the latter ‘principles-based’ approach would be the preferred approach for AWAS 1. Therefore, AWAS 1 requires the Contextual Statement to provide information that enables users to understand the physical and administrative aspects of the water report entity. Specifically, it should include contextual information about the water assets and water liabilities of the water report entity, including any conditions or variations in conditions that have an impact on the management of those water assets and water liabilities. These conditions may, for example, include externally-imposed requirements related to, or policies and practices adopted in, managing the water report entity’s water assets and water liabilities. They may also include information about climatic conditions experienced before and during the reporting period and any significant conditions included in, or changes to, institutional or administrative arrangements relevant to the water report entity.
- B43. The WASB also decided it would be helpful to preparers of general purpose water accounting reports to include additional guidance in AWAS 1 illustrating the types of information that could be provided in the Contextual Statement. For example, information about the water assets and water liabilities of the water report entity may include details of the geographical location of the water assets and water liabilities, and actual storage volumes compared to total possible storage volumes.
- B44. In response to comments received on the ED AWAS 1, the WASB decided to include in AWAS 1 additional examples of information that may need to be disclosed in the Contextual Statement, depending on the nature of the water report entity. These include information about:
- a) water sharing and extraction limitations;
 - b) water utility service and operations;
 - c) trading of water rights and other claims to water;
 - d) environmental water stewardship;
 - e) water planning and strategic initiatives; and
 - f) the future outlook of the water report entity.

Accountability Statement (paragraphs 62–63)

- B45. The ED AWAS 1 proposed that the Accountability Statement should provide information that assists users to assess whether:
- a) the general purpose water accounting report has been prepared and presented in accordance with Australian Water Accounting Standards;
 - b) externally-imposed requirements relevant to managing the water assets and water liabilities of the water report entity have been complied with; and
 - c) best practices for managing water resources have been applied.
- B46. Some respondents to the ED AWAS 1 commented that such attestations go beyond those required in analogous circumstances and extend beyond the current information gathering abilities of the management of many water report entities.
- B47. In considering these comments the WASB reaffirmed its view that positive attestations about compliance with externally-imposed requirements and best practice would be useful to users of general purpose water accounting reports in assessing the stewardship and accountability of those charged with managing a water report entity’s water assets and water liabilities. However,

the WASB also acknowledged the need to ensure an appropriate balance between the costs and benefits of requiring such attestations, including the need to ensure that AWAS 1 would be able to be feasibly implemented for water report entities.

- B48. The WASB therefore concluded that information about material externally-imposed requirements related to, and policies and practices adopted in, managing the water report entity's water assets and water liabilities should be a disclosure requirement rather than the more onerous obligation to provide positive attestations relating to compliance. In addition, it was agreed that this information more appropriately belonged in the Contextual Statement.

Statement of Water Assets and Water Liabilities (paragraphs 64–106)

Terminology

- B49. Some respondents to the ED AWAS 1 commented that the terms 'water assets' and 'water liabilities' were not appropriate to water accounting, and should be replaced with hydrological terms. In considering these comments, WASB also noted the following:
- there is extensive literature on the terms 'asset' and 'liability', which would likely be useful in the development of water accounting;
 - the development of water accounting has, to the extent possible, been based on applying the financial accounting analogy; and
 - there are benefits in applying new terminology for water accounting not tied to existing jurisdictional variations but nonetheless with broad general understanding.
- B50. The WASB therefore decided to retain the terms water asset and water liability.

Information to be presented (paragraphs 65–70)

- B51. An enhancing quality of the information provided in general purpose water accounting reports is comparability. Information about a water report entity is more useful if it can be compared with similar information about other water report entities or with similar information about the same entity for some other reporting period or some other point in time. Users must be able to compare the general purpose water accounting reports of a water report entity through time in order to identify trends. Users must also be able to compare the general purpose water accounting reports of different water report entities in order to evaluate their relative performance and trends in relation to water assets and water liabilities. To facilitate comparability, the WASB concluded that AWAS 1 should prescribe minimum line items to be included in the water accounting statements.
- B52. In determining the minimum line items, reference was made to the following:
- The *SKM Report: Stocktake and Analysis of Australia's Water Accounting Practice* (2006). Appendix B of the report offered an initial review of the possible list of items to be used to record the volumes of water assets and water liabilities of a water report entity, as well as the transactions, transformations and events that give rise to changes in water assets and changes in water liabilities;
 - The *Water Balance Framework* (Bureau of Meteorology 2009), which has been developed by the Bureau of Meteorology to provide conceptual underpinning for both the National Water Account and periodic water resource assessments, including the Australian Water Resources Assessment; and
 - The National Water Accounting Development project Pilot Project Demonstration Accounts*. The line items chosen by each of the jurisdictions to represent the transactions, transformations

and events for their respective water report entities were reviewed. These included the demonstration accounts for Pioneer Valley (Qld), Regulated Murrumbidgee River (NSW), Goulburn–Broken Catchment (Vic), Carnarvon Groundwater Management Area (WA), the Regulated River Murray (MDBA) and the Lower River Murray (SA).

- B53. The WASB concluded that while preparers of general purpose water accounting reports should be given the option of presenting additional line items, they should nonetheless be required to present additional sub-classifications when such additional information is relevant to an understanding of the Statement of Water Assets and Water Liabilities.
- B54. Some respondents to the ED AWAS 1 suggested that the minimum line items proposed for water accounting statements should be more detailed, particularly for the different ‘water stores’ such as groundwater and surface water. The WASB noted that this suggestion would result in a set of minimum line items consistent with those included in the Preliminary Australian Water Accounting Standard (PAWAS), which the WASB had decided to amend in the production of the ED AWAS 1 on the basis of comments received on the PAWAS. Consistent with the comments received on the PAWAS, the WASB decided not to amend the minimum line items proposed in the ED AWAS 1 on the basis that:
- a) there are circumstances in which preparers cannot practically split groundwater and surface water; and
 - b) the minimum line items proposed in the ED AWAS 1 do not prevent further sub-classification when this is relevant to an understanding of the water assets and water liabilities of the water report entity.

Negative water liabilities

- B55. Some of the general purpose water accounting reports produced since the release of the ED AWAS 1 have included ‘negative’ water liabilities in the Statement of Water Assets and Water Liabilities. For instance, negative water liabilities have been recognised when entitlement holders have called upon more water in a given reporting period greater than their allocations, causing their allocation account to be in deficit to the water report entity.
- B56. Some preparers of these reports suggested that the water accounting statements would be more readily understandable by presenting such balances as negative water liabilities. However, applying the definitions of water assets and water liabilities means the ‘negative’ water liability should in fact be recognised as a water asset, on the basis that it represents a claim against the water assets of a counter-party. The WASB concluded that such a water asset should not be presented as a water liability, because it does not represent a present obligation of the water report entity arising from a past obligating event. Whether the future benefits associated with the water asset can in fact be recovered or derived by the water report entity is a recognition matter and may lead to the water asset not being recognised to the extent that recovery is not probable.
- B57. It was agreed that additional guidance should be incorporated into the model reports to demonstrate how, in these circumstances, information can be presented in a meaningful way for users.

Recognition criteria: water assets (paragraphs 71–82)

- B58. AWAS 1 requires an item that meets the definition of a water asset to be recognised in the Statement of Water Assets and Water Liabilities when:
- a) it is probable that future benefits associated with the item will be derived by the water report entity, or by its stakeholders; and
 - b) the item’s volume can be quantified with representational faithfulness.
- B59. An essential characteristic of a water asset is that the water or rights or other claims to water must either be held or able to be transferred by the water report entity.

- B60. In considering the definition of water assets, the WASB considered whether the concept of 'control' should be included. That concept underpins the definition of an asset for financial reporting purposes (see Australian Accounting Standard Board *Framework for the Preparation and Presentation of Financial Statements*). However, the WASB concluded that the concept of control was not appropriate in a water context. This is because for some water entities, the responsibilities of management do not extend to control over water or rights or other claims to water. Rather, such control lies with other stakeholders, such as entitlement holders.
- B61. The WASB concluded that the notion of 'holding' or having the ability to 'transfer' water or rights or other claims to water would be more appropriate in a water accounting context on the basis that these can be 'held' physically, virtually, legally or vicariously and these forms of holdings or transfers are not mutually exclusive.
- B62. Some respondents to the ED AWAS 1 raised concerns about the implication of recognising certain water assets and water liabilities in the water accounting statements and thereby presenting commercial-in-confidence information. For example, some respondents suggested that when the management of the water report entity is economically dependent on a limited number of customers, disclosing information about the quantification of particular water assets could potentially cause commercial-in-confidence information to be disclosed. The WASB considered these comments and concluded that in such situations, information could be presented in a general purpose water accounting report in a suitably sensitive way so as not to create commercial-in-confidence issues.

Future benefits (paragraphs 72–74)

- B63. Paragraphs 21–33 of SWAC 4 *Definition of Elements of General Purpose Water Accounting Reports* discuss future benefits derived by a water report entity. The WASB concluded that AWAS 1 should similarly include guidance on the notion of future benefits, and that such guidance should summarise the principles included in SWAC 4.

Types of water assets (paragraphs 75–81)

- B64. The WASB noted that applying the definition of, and recognition criteria for, water assets would be relatively straightforward for some items, for example, water in storages behind dams and water within lakes and other natural water surface features. However, the WASB was concerned that the application of the definition and recognition criteria may prove challenging for other items and that, in the absence of additional guidance in AWAS 1, divergent treatments amongst water report entities could emerge. In particular, the WASB concluded that additional guidance would be useful for groundwater, dead storage water and conveyance water. In this regard, the main focus of the WASB's deliberations was on part (a) of the recognition criteria (probable future benefits).

Groundwater (paragraph 77)

- B65. For some groundwater assets, volumetric information is available about the total water in the aquifer. However, typically only a small portion of this water is available to be accessed, taken or delivered due to extractive limits included in the water resource management instrument. This is because extractions above a certain level may be detrimental to the surrounding ecosystem or may result in contamination of the aquifer.
- B66. The WASB considered whether it would be appropriate to recognise, as a water asset, the total water in the system or only the volume representing the extractable portion. Put another way, the WASB considered whether, given the restrictions on the ability to extract water from the aquifer, it could be concluded that it would be probable that future benefits would be derived from the total volume of water in the system. This in turn raised the question of what should be considered to be future benefits.

B67. Paragraph 21 of the Statement of Water Accounting Concepts 4 *Definition of Elements of General Purpose Water Accounting Reports* (SWAC 4) states the following:

The future benefits embodied in an asset may flow to the water reporting entity or to stakeholders of a physical water entity that is a water reporting entity in a number of ways. For example, an asset may be:

- a) used singly or in combination with other assets or water assets
- b) exchanged for other assets or water assets
- c) used to settle a liability or water liability
- d) distributed to the owners of the water reporting entity or other stakeholders of the water reporting entity.

B68. SWAC 4 then provides an analysis of future benefits related to a water report entity and those related to a physical water report entity. For example, paragraph 22 states the following:

In the case of an individual or organisation that is a water reporting entity, future benefits derived by the water reporting entity are contributions to achieving the economic, environmental, social or other objectives of the water reporting entity.

B69. Paragraph 25 of SWAC 4 states the following:

Future benefits that achieve environmental objectives of a water reporting entity may produce environmental benefits, or prevent or reduce environmental degradation. For example, water stored in the dams of a park with environmental protection objectives may be released to mitigate the nature and extent of deterioration of rivers and environmental sites during drought conditions.

B70. Consistent with the notion of deriving environmental benefits, some argue that the entire groundwater system could be regarded as providing future benefits in the form of preserving ecosystems. In other words, notwithstanding that only a restricted or limited volume of groundwater is available to be extracted, future benefits are derived in the form of achieving the environmental objectives of the water report entity. Therefore, provided it can be quantified with representational faithfulness, the entire volume of groundwater should be recognised as a water asset in the Statement of Water Assets and Water Liabilities.

B71. Alternatively, others consider the argument that the entire groundwater system contributes to the achievement of environmental objectives of the water report entity to be tenuous. They argue that an assessment of the future benefits to be derived from the groundwater system should be limited to the amounts capable of being accessed, taken or delivered. The fact that the non-extractable portions contribute to the attainment of environmental benefits, such as the preservation of ecosystems and the avoidance of salt contamination, is secondary to the benefits to be derived from the use of the extractable portions. Therefore, provided it can be quantified with representational faithfulness, only the extractable volume of groundwater should be recognised as a water asset in the Statement of Water Assets and Water Liabilities.

B72. In considering this issue, the financial reporting analogy of a 'contingent asset' was explored. A contingent asset is defined in *International Financial Reporting Standards* as follows:

A possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

B73. The WASB noted that those who argue that only the extractable volume of groundwater should be recognised as a water asset would make an analogous argument that the non-extractable portion of the aquifer is in the nature of a contingent asset. In other words, the non-extractable volume represents only a possible water asset because the ability to extract volumes in excess of the specified extractable volumes would be contingent on changes to the relevant legislative or regulatory requirements or the triggering of waiver provisions, all of which are uncertain events not wholly within the control of the management of the water report entity.

B74. The WASB also considered whether recognition of the entire volume of groundwater would be consistent with the objective of providing relevant information to users of general purpose water accounting reports. *SWAC 3 Qualitative Characteristics of General Purpose Water Accounting Reports* outlines the qualitative characteristics of general purpose water accounting reports. Paragraph 18 states the following:

An essential quality of the information provided in GPWAR (General Purpose Water Accounting Report) is that it is relevant to the decision-making needs of users. Information is considered to be relevant when it influences, or has the capacity to influence, users' decisions about the allocation of resources. Information is capable of influencing users' decisions when it has predictive value, confirmatory value or both. Information is useful if it assists users by helping them to understand and evaluate past, present or future water events, transactions or transformations.

B75. As noted in *SWAC 3*, information is considered to be relevant when it influences, or has the capacity to influence, users' decisions about the allocation of resources. The WASB noted during its deliberations that concerns had been raised when preparing demonstration accounts as part of the NWADp Pilot Program that recognising a total volume of groundwater would increase the risk of over-consumption of the water resource.

B76. After considering each of the arguments, the WASB concluded that groundwater should be viewed, in the first instance, as a contingent water asset on the basis that it does not meet the definition of a water asset. However, the WASB further concluded that the extractable portion of the groundwater meets the definition of a water asset and also satisfies the recognition criterion relating to probable future benefits. Therefore, provided it can be quantified with representational faithfulness, the extractable volume of groundwater should be recognised as a water asset in the Statement of Water Assets and Water Liabilities.

B77. Because, in forming this conclusion, reference had been made to the accounting concept of a contingent asset, the WASB decided that it would be useful to include a similar concept in AWAS 1 (see paragraphs B92–B95).

Dead storage water (paragraph 78)

B78. Some argue that dead storage water provides future benefits to the water report entity for the following reasons:

- a) its presence means the surface water above the dead storage water can be accessed;
- b) if the storage level falls below the elevation of the lowest constructed outlet, the dead storage water could be accessed and, with some effort and investment, taken or delivered; and
- c) if the dead storage water was not there it would need to be replaced for storage to function as intended. Consequently, there is a benefit in not having to replace it with other water assets.

- B79. Others disregard these arguments on the basis that an assessment of future benefits should be limited to amounts that are capable of being accessed and used. They further argue that consistent with the treatment of the non-extractable portion of groundwater, dead storage water could be considered to be in the nature of a contingent water asset.
- B80. However it was noted that a key characteristic of a contingent water asset is that it is a possible water asset whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the water report entity. Accessing dead storage water is generally within the control of the management of a water report entity via the use of alternative extraction methods. In contrast, the non-extractable portion of groundwater is in the nature of a contingent asset because the ability to access is not within the control of the management of the water report entity.
- B81. The WASB concluded that dead storage water meets the definition of a water asset as well as the recognition criterion relating to probable future benefits. Therefore, provided its volume can be quantified with representational faithfulness, dead storage water is recognised as a water asset in the Statement of Water Assets and Water Liabilities.

Conveyance water (paragraph 79)

- B82. The WASB noted that conveyance water provides future benefits for the following reasons:
- a) it enables the delivery of water in regulated rivers and utility supply networks by covering the loss of water in the delivery process;
 - b) if necessary, it could be accessed and taken or delivered; and
 - c) if conveyance water was not part of a delivery system it would need to be replaced for the delivery system to function as intended. Consequently, there is a benefit in not having to replace it with other water assets.
- B83. The WASB concluded that conveyance water meets the definition of a water asset as well as the recognition criterion relating to probable future benefits. Therefore, provided its volume can be quantified with representational faithfulness, conveyance water is recognised as a water asset in the Statement of Water Assets and Water Liabilities.

Present right or other present claim to water (paragraph 80–82)

- B84. As part of its deliberations on the accounting for a right or other claim to water (water right), the WASB agreed that the treatment of a water right by the holder of the water right should be symmetrical to the treatment of the obligation by the counter-party (the party with the obligation to supply water under the water right).
- B85. As discussed in paragraphs 93–97 of the ED AWAS 1 (and further discussed in paragraphs B98–B99 below), a present obligation exists only for any undelivered volumes relating to current or past reporting periods. An obligation to deliver water in future reporting periods is not a present obligation but rather a future commitment, which therefore is not recognised as a water liability. To achieve symmetrical accounting, it was agreed that guidance should be included in AWAS 1 specifying that a water right meets the definition of a water asset when it represents a *present* right or other *present* claim to water. Further, it is only the undelivered volumes relating to the current or past reporting periods that give rise to a *present* right. The right to water under an allocation relating to future reporting periods is not a present right but rather a future right and therefore is not recognised as a water asset.

B86. The WASB noted that amending the definition of water assets to refer to present right or other present claim to water would be useful. However, as the definition of water asset in AWAS 1 has been based on the *Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports*, the WASB agreed that the definition in AWAS 1 should only be amended after the definition in the Framework is amended. It was noted that a review of the Framework is expected in the near future and that the water asset definition would be reviewed at that time.

Future water rights (paragraphs 83–86)

B87. Consistent with the objective of general purpose water accounting reports, the WASB concluded that it would be useful to require information to be disclosed in those reports about the extent to which water assets at the reporting date would be available to settle water liabilities and other commitments within 12 months of the reporting date.

B88. One approach considered for providing this information was to require information to be presented in the Statement of Water Assets and Water Liabilities based on a temporal classification of water assets and water liabilities. It was noted that temporal classification is applied in financial reporting. For example, the assets and liabilities recognised in an entity's Statement of Financial Position are classified as current or non-current in accordance with specified criteria. An asset that is expected to be realised within 12 months of the reporting date or a liability that is due to be settled within 12 months of the reporting date would be classified as current for financial reporting purposes. However, the WASB noted that adopting a temporal classification for the Statement of Water Assets and Water Liabilities would not provide sufficiently detailed information. This is because future water commitments expected to be settled within 12 months but not representing present obligations at the reporting date would not be recognised as water liabilities in the Statement of Water Assets and Water Liabilities. Consequently, AWAS 1 requires information to be disclosed in the notes about the extent to which water assets at the reporting date would be available to settle water liabilities and other commitments within 12 months of the reporting date.

B89. The WASB also agreed that for this disclosure to provide fulsome information on a water report entity's future water prospects, it would be appropriate to include information about future water rights expected to be realised within 12 months of the reporting date.

B90. To give effect to its decision to require this information, the WASB agreed that AWAS 1 should include guidance on what constitutes a future water right and examples of such rights. The WASB agreed that:

- a) future water rights are not, at the reporting date, present rights or other present claims to water and are therefore not recognised as water assets in the Statement of Water Assets and Water Liabilities;
- b) future water rights should be defined as a right or other claim to water that relates to future reporting periods; and
- c) AWAS 1 should include, as examples of future water rights, expected future allocation announcements and rights under an ongoing water commitment. These are not, at the reporting date, present rights of the water report entity, but rather represent rights or other claims to water that relate to future reporting periods.

B91. See paragraphs B147–B150 for a discussion of the disclosure requirements related to water assets available to settle water liabilities and future water commitments expected to be settled within 12 months of the reporting date.

Contingent water assets (paragraphs 87–91)

- B92. As noted in paragraph B72, reference was made to the accounting concept of a contingent asset in reaching conclusions about the treatment of groundwater. The WASB decided it would be useful to include a similar concept in AWAS 1.
- B93. The WASB agreed that a contingent water asset should be defined as a possible water asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the management of the water report entity.
- B94. Because it is only a possible water asset, a contingent water asset does not meet the definition of water assets. It is therefore not recognised in the Statement of Water Assets and Water Liabilities.
- B95. The WASB decided it would be helpful to preparers of general purpose water accounting reports to include additional guidance in AWAS 1 to illustrate the concept of a contingent water asset. AWAS 1 therefore includes the example of groundwater discussed in paragraphs B65–B77, clarifying that the non-extractable portion of groundwater is a contingent water asset because it is possible that a change in circumstances not wholly within the control of the management of the water report entity (such as legislative changes that alter the extractive limits) would result in further portions of the groundwater storage becoming available for extraction.

Recognition criteria: water liabilities (paragraphs 92–97)

- B96. AWAS 1 requires an item that meets the definition of a water liability to be recognised in the Statement of Water Assets and Water Liabilities when:
- it is probable that the present obligation will result in a decrease in the water report entity's assets or an increase in another water liability when the obligation is discharged; and
 - the item's volume can be quantified with representational faithfulness.
- B97. In considering the definition and recognition criteria for water liabilities, the WASB concluded that providing additional guidance in AWAS 1 on the notion of a present obligation would be useful for preparers of general purpose water accounting reports.

Present obligation (paragraphs 93–97)

- B98. To meet the definition of a water liability it is necessary that the item constitutes a present obligation of the water report entity. Paragraph 34 of SWAC 4 states the following:

An essential characteristic of a water liability that is reported by a water reporting entity is that the water reporting entity has a present obligation. An obligation is a duty or responsibility to act or perform in a certain way. Obligations may be legally enforceable as a consequence of a binding contract or statutory requirement. This is normally the case, for example, with volumes of water deliverable under contract or as a consequence of an allocation announcement under a water sharing plan.

- B99. The WASB noted that SWAC 4 identifies volumes of water deliverable as a consequence of an allocation determination and announcement under a water sharing plan as an obligation. The WASB agreed that an allocation determination and announcement would give rise to a present obligation and that such a determination was relatively straightforward. However, the WASB was concerned that in other cases, determining whether a present obligation exists may prove challenging and that in the absence of additional guidance, divergent treatments could emerge. For example, the WASB agreed that additional guidance would be useful for ongoing water commitments, which arise when a water report entity is subject to a water sharing plan that requires it to deliver a monthly minimum flow of water to another water report entity to the extent that there is available water. The WASB considered whether the ongoing water commitment represented a present obligation of the water report entity.

Ongoing water commitments (paragraph 97)

B100. The WASB noted that the definition of a water liability in SWAC 4 draws on the definition of a liability in International Financial Reporting Standards. The definition of a liability in International Financial Reporting Standards also makes use of the term 'present obligation'. Therefore, the financial reporting concept of a 'present obligation' was considered.

B102. At the time of issuing AWAS 1, paragraph 10 of *International Accounting Standard 37* (IAS 37) contained the following definitions:

A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

A provision is a liability of uncertain timing or amount.

A contingent liability is:

- a) a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
- b) a present obligation that arises from past events but is not recognised because:
 - i) it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or
 - ii) the amount of the obligation cannot be measured with sufficient reliability.

The WASB noted that a contingent liability in a financial reporting context can be either a possible obligation [part (a) of the definition of a contingent liability] or an unrecognised present obligation [part (b) of the definition of a contingent liability]. In this regard, the main focus of the WASB's deliberations was on contingent liabilities that represent possible obligations and not unrecognised present obligations.

B103. International Financial Reporting Standards also distinguish between a provision and a contingent liability. This is significant because a provision is recognised as a liability in the financial statements when recognition criteria are met, whereas contingent liabilities are not permitted to be recognised in the financial statements. A provision is 'a present obligation...that arises from past events, the settlement of which is expected to result in an outflow...' whereas a contingent liability is 'a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.' A contingent liability is a possible obligation because it is yet to be confirmed whether the entity has a present obligation that could lead to an outflow of resources. The definition of both a provision and a contingent liability refers to obligations (be they present or possible) that arise from past events.

B104. Paragraph 10 of IAS 37 specifies that a past event that leads to a present obligation is an obligating event, and contains the following definition:

An obligating event is an event that creates a legal or constructive obligation that results in an entity having no realistic alternative to settling that obligation.

B105. Therefore, it is necessary to determine whether a past event constitutes an obligating event, and gives rise to a present obligation rather than a possible obligation.

- B106. International Financial Reporting Standards provide examples of what constitutes an obligating event. One example involves a manufacturer granting a warranty to purchasers of its product at the time of sale. The sale of the product represents an obligating event because it creates a present legal obligation on the manufacturer to make good any defective products. Another example involves an entity operating an oil rig whereby the terms of its licence require it to remove the rig at the end of production and restore the seabed. The construction of the rig represents an obligating event because it creates a present legal obligation on the entity to remove the rig and restore the seabed at the end of production.
- B107. International Financial Reporting Standards also provide examples of events that do not give rise to a present obligation. One example is a court case in which the facts and circumstances suggest that the defendant will not be found liable. On that basis, the event that led to the litigation is not considered to be an obligating event. Instead, it is a past event that gives rise to a possible obligation whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity (the decision of the court). In other words, the obligation to pay damages is contingent upon the outcome of the litigation.
- B108. Some argue the enactment of the water resource management instrument that imposes an ongoing water commitment is the obligating event that gives rise to a present obligation to deliver water. However, this raises a further question about the quantification of the ongoing water commitment. For example, because it is an ongoing commitment, should the obligation be measured (i) into perpetuity; (ii) to the extent that the water report entity has existing water that is available to satisfy the ongoing commitment; or (iii) for a specified, albeit arbitrary, time period (for example, volumes to be delivered within the next 12 months)?
- B109. Others note that supply of water under an ongoing water commitment is ultimately subject to the water being available. Further, an inability to deliver water in a particular month typically does not result in a carryover of the undelivered amount. Therefore, the obligation to deliver water is contingent on sufficient water being available in a given month, meaning that the obligating event is not the enactment of the water resource management instrument but rather the availability of water over time. In other words, the obligation to deliver water arises over time, and is dependent on water availability. Those who support this approach argue that there is a present obligation only for the undelivered volumes relating to past months for which there was sufficient water available to meet the minimum flow requirements. The requirement to deliver water in future reporting periods under an ongoing water commitment is not a present obligation of the water report entity at the reporting date but rather a possible obligation (because the obligation to deliver is contingent on the availability of water in the future).
- B110. After considering each of the arguments, the WASB concluded that the obligating event relating to an ongoing water commitment is not the enactment of the water resource management instrument but rather the availability of water to meet the minimum flow requirements for a particular month. Accordingly, a present obligation would exist at the reporting date for any undelivered volumes relating to past months for which sufficient water was available to meet the minimum flow requirements. The requirement to deliver water in future reporting periods under an ongoing water commitment is not a present obligation but rather a possible obligation.

Constructive obligations (paragraph 97)

- B111. As noted in paragraph B99, the WASB was concerned that determining whether a present obligation exists may prove challenging and that, in the absence of additional guidance, divergent treatments among water report entities could emerge. In addition to considering present obligations in the context of ongoing water commitments, it was agreed that present obligations in the form of constructive obligations should also be considered.

B112. Paragraph 34 of SWAC 4 states the following:

...obligations also arise, however, from normal business practice, custom and a desire to maintain good business relations or act in an equitable manner. If, for example, management of an entity decides as a matter of policy to return water to the environment, even when there exists no enforceable obligation to do so, the obligation creates a water liability.

In a financial reporting context, obligations that arise in this manner are referred to as constructive obligations and are distinguished from legal obligations. At the time of issuing AWAS 1, paragraph 10 of IAS 37 contained the following definitions of constructive and legal obligations:

A constructive obligation is an obligation that derives from an entity's actions where:

- a) by an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties that it will accept certain responsibilities; and
- b) as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

A legal obligation is an obligation that derives from:

- a) a contract (through its explicit or implicit terms);
- b) legislation; or
- c) other operation of law.

B113. Volumes of water deliverable as a consequence of an allocation announcement or an ongoing water commitment under a water sharing plan represent legal obligations.

B114. The WASB noted that a constructive obligation may arise, for example, when the management of the water report entity has indicated to other parties that a certain volume of water will be returned to the environment each reporting period and in doing so has created a valid expectation on the part of those parties that the water will be returned if sufficient water is available. Similar to the conclusion reached for ongoing water commitments, the WASB concluded that a present obligation exists at the reporting date for any water that is yet to be returned to the environment in accordance with management's decision. Importantly, it is only the water that is expected to be delivered that relates to the current or prior reporting periods that gives rise to a present obligation at the reporting date. A decision to return water in future reporting periods is not a present obligation but rather a possible obligation.

B115. Because, in forming this conclusion, reference was made to the accounting concepts of obligating events, legal obligations, constructive obligations and contingent liabilities, the WASB decided to include similar concepts in the AWAS 1 (see paragraphs B125–B129 for a discussion of contingent water liabilities).

B116. Some respondents to the ED AWAS 1 flagged difficulties in quantifying water liabilities relating to unconditional rights to draw, multi-year water allocations and supplementary water licences. The WASB noted that these difficulties arose from the same root cause. In each of these cases, the obligating event is a legal obligation and there is confusion about whether the resulting water liability should be quantified on the basis of expected volume or maximum volume.

B117. For example, assume a water entity has issued a multi-year entitlement under which the entitlement holder receives 100 000 ML per year, with 100% allocation. The entitlement holder is able to call upon 200% of this allocation in any one year, but no more than 300% over a rolling three-year period. At the time of allocation announcement and determination by the water report entity, the maximum volume that could be taken is 200 000 ML, though the expected volume based on previous experience with this entitlement holder is only 80 000 ML.

- B118. It could be argued that recognising the maximum possible volume of a water liability may not result in a faithful representation of the transactions, transformations and events the water liability purports to represent. However, the WASB noted that the quantification of water liabilities should result in information being presented that is consistent with a water report entity's present obligations.
- B119. In the above example, although the water report entity may be correct in assuming that only 80 000 ML of the allocation is expected to be called upon during the reporting period, it has an unavoidable and unconditional legal obligation to make 200 000 ML available to the entitlement holder. The WASB concluded that the water report entity should quantify the water liability in line with this present obligation.
- B120. Based on this example, and in order to ensure that water allocations are reported consistently, the WASB decided to include additional guidance in AWAS 1 clarifying that the maximum volume of a legal obligation should be recognised for water liabilities, rather than the expected volume.
- B121. The WASB also decided to include in its Illustrative General Purpose Water Accounting Reports some examples of unconditional rights to draw, multi-year water allocations and supplementary water licenses.

Future water commitments (paragraphs 98–101)

- B122. As discussed in paragraph B87, consistent with the objective of general purpose water accounting reports, the WASB concluded it would be useful to require information to be disclosed in the notes about the extent to which water assets at the reporting date would be available to settle water liabilities and other commitments within 12 months of the reporting date.
- B123. To give effect to this decision, the WASB agreed that guidance on what constitutes a future water commitment should be included in AWAS 1. The WASB agreed that future water commitments are not, at the reporting date, present obligations of the water report entity and are therefore not recognised as water liabilities in the Statement of Water Assets and Water Liabilities. It was further agreed that future water commitments should be defined as expected future demands on water influenced by the availability and management of the water assets of the water report entity. They may arise as a result of externally-imposed requirements or the practices adopted for managing water assets.
- B124. The WASB also decided that AWAS 1 should include an example to illustrate a future water commitment. It therefore provides the example of expected future allocation announcements, clarifying that they are not, at the reporting date, present obligations of the water report entity. Rather, they represent expected future demands on water influenced by the availability and the management of the water assets of the water report entity.
- B125. See paragraphs B147–B150 for a discussion of the disclosure requirements related to water assets available to settle water liabilities and future water commitments expected to be settled within 12 months of the reporting date.

Contingent water liabilities (paragraphs 102–106)

- B126. As noted in paragraph B114, reference was made to the accounting concept of a contingent liability in reaching conclusions about the concept of a present obligation. The WASB decided it would be useful to include a similar concept in AWAS 1.
- B127. The WASB agreed to draw on the financial reporting definition of a contingent liability and to therefore define a contingent water liability as an obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the water report entity.
- B128. Because it is a possible obligation, a contingent water liability does not meet the definition of a water liability. It is therefore not recognised in the Statement of Water Assets and Water Liabilities.

- B129. The WASB decided that it would be helpful to preparers of general purpose water accounting reports to include additional guidance in AWAS 1 to illustrate the concept of a contingent water liability. In particular, AWAS 1 includes the example of an ongoing water commitment, clarifying that the requirement to deliver water in future reporting periods under an ongoing water commitment is a contingent water liability because the delivery of water depends on sufficient water being available in a given future month.
- B130. The WASB further noted that a contingent water liability may also represent a future water commitment. To the extent that a contingent water liability is also a future water commitment expected to be settled within 12 months of the reporting date, information about that future water commitment is disclosed in the notes.

Statement of Changes in Water Assets and Water Liabilities and Statement of Water Flows (paragraphs 107–127)

Information to be presented (paragraphs 109–112 and 117–127)

- B131. As noted in paragraph B51, to facilitate comparability, the WASB concluded that AWAS 1 should prescribe the line items to be included in the water accounting statements, but still allow for flexibility in presentation based on the nature of the water report entity and the information needs of users of the general purpose water accounting report.
- B132. The WASB also concluded that while preparers of general purpose water accounting reports should be given the option of presenting additional line items, they should nonetheless be required to present additional sub-classifications when such additional information is relevant to an understanding of the Statement of Changes in Water Assets and Water Liabilities or the Statement of Water Flows.
- B133. In the transition from the ED AWAS 1 to AWAS 1, the WASB agreed to remove the word ‘physical’ from the title of the water accounting statement previously referred to as the ‘Statement of Physical Water Flows’. The word ‘physical’ was concluded to be redundant given the definition of water is:
- The liquid that descends from the clouds as rain and forms stream, lakes, groundwater aquifers and seas. Water is a chemical compound comprising two atoms hydrogen and one atom oxygen. Water may exist in solid, liquid or gaseous form.

Group water accounting reports (paragraphs 128–132)

- B134. To aid and inform the preparation of water accounting reports for a water report entity that comprises several water entities, the WASB decided to include in AWAS 1 requirements and guidance related to the preparation of group water accounting reports. A group water accounting report is the water accounting report of a group water report entity presented as a single water entity.
- B135. Specifically, the following issues were considered:
- a) whether specific requirements for preparing group water accounting reports should be included;
 - b) whether criteria should be included for determining when a group water accounting report should be prepared;

- c) what definitions relating to the preparation of a group water accounting report should be included;
- d) what procedural guidance should be included for preparing group water accounting reports; and
- e) what group-related disclosure requirements should be included.

Basis for preparing group water accounting reports

- B136. A key issue for consideration was whether AWAS 1 should specify a basis for determining the circumstances in which a group water accounting report would be required to be prepared.
- B137. By way of a financial reporting analogy, Australian Accounting Standard AASB 127 *Consolidated and Separate Financial Statements* prescribes 'control' as the basis for preparing consolidated financial statements. That is, an entity (parent) is required to prepare consolidated financial statements in which it consolidates all of the entities that it controls (subsidiaries).
- B138. The WASB decided that a basis was not required in a water accounting context since the requirement to consolidate a number of water entities into a single water entity would ultimately come via a regulation, statute or directive from an authority such as the Bureau of Meteorology. Accordingly, a basis for preparing group water accounting reports is not included in AWAS 1. Instead, AWAS 1 defines a group water report entity as a water report entity comprising individual water entities and for which a group water accounting report is required to be prepared under a regulation, statute or directive. It also prescribes the procedures to be applied in preparing group water accounting reports.

Defined terms to be included in AWAS 1

- B139. Because the requirements and guidance for preparing group water accounting reports that are general purpose water accounting reports are described in AWAS 1, the WASB decided to include in AWAS 1 a definition of a group water accounting report.
- B140. By way of a financial reporting analogy, AASB 127 defines consolidated financial statements as 'the financial statements of a group presented as those of a single economic entity'. It goes on to define a group as 'a parent and all its subsidiaries', with the parent–subsidiary relationship underpinned by the concept of control.
- B141. The WASB decided that aspects of this definition could be used in a water accounting context. In particular:
- a) a group water accounting report is the water accounting report of a group water report entity presented as a single water entity; and
 - b) a group water report entity is a water report entity comprising individual water entities and for which a group water accounting report is required to be prepared under some regulation, statute or directive.
- B142. The definition of a group water report entity specifies that a group water report entity comprises water entities, rather than water report entities. This is because a group water report entity may comprise water entities that are not themselves water report entities.

Procedures for preparing group water accounting reports

- B143. Transactions may occur regularly between water entities that are part of the same group water report entity. For example, water outflows from one water entity may represent water inflows of another water entity in the group. Such transactions are recognised in the separate water accounting reports of the respective water entities. For a group water accounting report to present water information for the group as a single water entity, transactions between water entities comprising the group need to be eliminated to ensure there is no overstatement or double-counting of water assets, water liabilities, changes in water assets, changes in water liabilities, water inflows or water outflows. For example, when the water outflows from one water entity represent the water inflows of another water entity within the same group, simply aggregating the water accounting statements of these water entities would result in an overstatement of both inflows and outflows.

B144. In considering what guidance to include in AWAS 1 on preparing group water accounting reports, reference was made to AASB 127, which prescribes a number of consolidation procedures to be applied in the preparation of consolidated financial statements. In particular, the WASB decided to include requirements and guidance dealing with:

- a) the need for transactions between water entities within a group to be eliminated as appropriate to avoid overstating or double-counting the elements of water accounting statements;
- b) the need for the water accounting statements for all water entities within the group to be prepared as of the same date and for the same reporting period to provide meaningful information as at a point in time and for a particular period; and
- c) the need for the water accounting statements of all water entities within the group to be prepared using uniform water accounting policies for like transactions and other events to ensure a meaningful aggregation of consistent information.

B145. In terms of the requirement to make adjustments to avoid overstating or double-counting the elements of water accounting statements, the WASB considered the following example:

A group water report entity comprises Water Entity A and Water Entity B:

- a) Water Entity A's only surface water increase during the reporting period is an inflow of 250 000 ML;
- b) Water Entity A's only surface water decrease during the reporting period is an outflow of water to Water Entity B;
- c) Water Entity B's only surface water increase for the reporting period is an inflow of 240 000 ML from Water Entity A; and
- d) Water Entity B's only surface water decrease during the reporting period is an outflow of 225 000 ML.

The following table illustrates the quantification of the elements included in the Statement of Changes in Water Assets and Water Liabilities for the group water report entity.

	Water Entity A	Water Entity B	Aggregation	Adjustments	Group Water Report Entity
Surface water increases	250 000 ML	240 000 ML	490 000 ML	(240 000 ML)	250 000 ML
Surface water decreases	240 000 ML	225 000 ML	465 000 ML	(240 000 ML)	225 000 ML
Change in net water assets	10 000 ML	15 000 ML	25 000 ML		25 000 ML

The 'Aggregation' column represents the summation of Water Entity A and Water Entity B. The 'Group Water Report Entity' column reports that same aggregation but also incorporates adjustments to eliminate the effect of water flows between Water Entities A and B during the reporting period, in order to present the group as a single water report entity. Therefore, from a group perspective, the surface water increases are inflows of 250 000 ML, not 490 000 ML. Similarly, the group's surface water decreases are outflows of 225 000 ML, not 465 000 ML. While the change in net water assets in both the Aggregation and Group columns is the same (25 000 ML), failure to make the adjustment for water flows between the two water entities results in overstatement of both the surface water increases and the surface water decreases from the group's perspective.

Group-related disclosure requirements (paragraph 177)

B146. In developing the group-related disclosure requirements to be included in AWAS 1, reference was made to AASB 127 *Consolidated and Separate Financial Statements*, which prescribes a number of disclosures in the preparation of consolidated financial statements. However, the WASB concluded that many of the financial reporting disclosure requirements were not relevant in a water accounting context, such as those relating to the application of the control concept and the relationship between a parent and subsidiary. It was decided that the most relevant additional information would be the names of all the water entities comprising the group.

Note disclosures (paragraphs 133–177)

B147. Consistent with the objective of general purpose water accounting reports, the WASB agreed that the following disclosure requirements should be included in AWAS 1:

- a) a summary of the significant water accounting policies used in the preparation of the general purpose water accounting report;
- b) information about items presented in the water accounting statements, including:
 - i) information about the restatement of comparative information;
 - ii) information about error corrections;
 - iii) information about quantification approaches; and
 - iv) reconciliations and other information related to the Statement of Water Flows; and
- c) other notes, including information about:
 - i) future prospects;
 - ii) contingent water assets and contingent water liabilities;
 - iii) water assets and water liabilities that fail the recognition criteria;
 - iv) water rights, water allocations and water restrictions;
 - v) water market activity;
 - vi) water for environmental, social and cultural, and economic benefit;
 - vii) segments; and
 - viii) group water accounting reports.

Future prospects (paragraphs 151–157)

B148. As outlined in paragraphs B87–B91 and paragraphs B121–B124, the WASB agreed it would be useful to require information to be disclosed in the notes about the extent to which water assets at the reporting date will be available to settle water liabilities and future water commitments within 12 months of the reporting date.

B149. The WASB decided to include additional guidance to illustrate the concept of ‘available’ water assets as there was concern that divergent treatments might emerge amongst water report entities without such additional guidance. Therefore, AWAS 1 includes guidance on dead storage water and conveyance water, clarifying that while they meet the definition of a water asset, they are typically not able to be accessed and taken or delivered to settle water liabilities or future water commitments. Accordingly, they do not typically form part of water assets available to be accessed and taken or delivered.

- B150. The WASB also noted that the volume of future water inflows was likely to depend on future climatic conditions. The WASB concluded that it would be appropriate to disclose information about the expected future inflows of water under a range of climatic conditions – such as extreme dry, dry, median and wet. The WASB decided it would also be appropriate to disclose information about any future water rights or future water commitments that may be affected by a variation in climatic conditions. The WASB concluded this would provide useful information about the degree of variability in the expected volumes of water assets of a water report entity.
- B151. The WASB additionally concluded that in some circumstances it may be appropriate to disclose information that enables users to evaluate the extent to which water assets at the reporting date will be sufficient to meet future water commitments expected to be settled beyond 12 months of the reporting date. For example, this would be the case when the management of the water report entity is required to ensure the availability of water through multi-year droughts and the water report entity is currently experiencing such drought conditions.

Water assets and water liabilities that fail the recognition criteria (paragraphs 161–162)

- B152. The WASB noted that there may be circumstances in which items meet the definitions of water assets and water liabilities, yet fail the relevant recognition criteria. The WASB considered whether these items should be included as additional categories of contingent water assets and contingent water liabilities; however WASB agreed that it would be misleading to do so. Instead, the WASB agreed that it would be useful to users to have information about these items disclosed separately in the notes.

Water market activity (paragraphs 165–167)

- B153. The WASB noted that there are three types of water market activity:
- a) trading between the water report entity and other external parties;
 - b) trading between water entities within a group water report entity; and
 - c) trading of rights or claims to water of the water report entity.
- B154. It was agreed that the disclosure requirements for water market activity should be limited to information about trading during the reporting period of rights or claims to water of the water report entity.

Water for environmental, social and cultural, and economic benefit (paragraphs 168–171)

- B155. AWAS 1 requires information to be disclosed about how water assets of the water report entity have been used during the reporting period in the pursuit of:
- a) environmental benefit;
 - b) social and cultural benefit; and
 - c) economic benefit.
- B156. The disclosure requirements relating to environmental benefit give effect to the provisions in the National Water Initiative (NWI) that deal with environmental water accounting.
- B157. The disclosure requirements relating to social and cultural benefit give effect to the provisions in the NWI that deal with indigenous access.
- B158. Respondents to the ED AWAS 1 supported the disclosures relating to environmental benefit, however flagged that additional implementation guidance would be useful. The WASB therefore worked with a number of jurisdictional representatives in water accounting and environmental reporting to develop that additional guidance, which is now included in the implementation guidance accompanying AWAS 1.

Segment information (paragraphs 172–176)

- B159. Segment information aims to provide users with relevant information about discrete components of a water report entity that is not otherwise evident from a consolidated view of the water report entity.
- B160. As part of its deliberations about the usefulness of segment information, the WASB acknowledged that a water report entity may comprise different or discrete activities or components. Information about those discrete components may not be evident from the water accounting statements. However, it was considered reasonable to expect that there may be users who would find information about those discrete components relevant in making decisions about the allocation of resources. On that basis, the WASB decided to include requirements for the provision of segment information.
- B161. The WASB also concluded that segments should be identified by considering the physical and administrative aspects of the water report entity. Water assets and water liabilities that are managed independently of other water assets and water liabilities would typically be identified as a segment. This could be due to the location of the water report entity's water assets and water liabilities. For example, different administrative arrangements (such as water resource management instruments) may apply to water assets and water liabilities in different locations. It may be appropriate to consider each location as a separate segment. Alternatively, water assets and water liabilities may be managed independently due to the nature of the water assets and water liabilities. For example, unregulated and regulated water assets may be subject to different water resource management instruments. The different instruments may require the water assets to be managed independently of each other. It may be appropriate to consider the water assets subject to the different instruments as being separate segments. The WASB concluded that providing information that is aligned with the way in which the water assets and water liabilities are managed would best align with the information needs of users.
- B162. Some respondents to the ED AWAS 1 raised concerns about the climatic information required to be disclosed as part of segment information. Specifically, respondents questioned why past climatic information was required to be disclosed in segment information and why climatic information was required to be disclosed at all.
- B163. Respondents noted that information about past climatic conditions was not required outside of the segment information, and questioned why it was therefore relevant for segment information. The WASB noted that the ED AWAS 1 proposed that the Contextual Statement include information about climatic conditions both before and during the reporting period, though the wording of this proposal was slightly different to that included for segment information. The WASB therefore agreed to amend the requirements related to past climatic conditions in segment information to match the requirements related to climatic conditions in the Contextual Statement to reduce any confusion for preparers.
- B164. On the need for climatic information to be included in segment information at all, respondents argued that it was unlikely there would be sufficient divergence in climatic conditions across the segments of the water report entity to warrant such information. The WASB noted that when segments are identified on an administrative or organisational basis, this may hold true. However, when the segments of the water report entity are identified on a geographical basis, the various segments may experience significantly different climatic conditions. Further, the ED AWAS 1 proposed that contextual information is only required 'to the extent it is not provided elsewhere in the general purpose water accounting report'. The WASB therefore decided that no further changes were warranted to the requirements related to climatic conditions for segments.

Unaccounted-for difference (paragraphs 114, 122 and 127)

B165. Some respondents to the ED AWAS 1 expressed concern that there was not an explicit disclosure requirement related to the unaccounted-for difference. The WASB noted that while this is the case, there is a general requirement to disclose supporting information for items presented in the water accounting statements, and a requirement to present the volume of any unexplained change in water assets and water liabilities in the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows as an 'unaccounted-for difference'. The WASB therefore concluded that there was no need to include in AWAS 1 further explicit disclosure requirements for unaccounted-for differences.

Assurance of water accounting reports (paragraphs 178–181)

B166. AWAS 1 requires a general purpose water accounting report to be subjected to assurance to establish whether it is presented fairly in accordance with Australian Water Accounting Standards. The assurance engagement is performed by an appropriately qualified assurance practitioner who is independent of:

- a) the management of the water report entity; and
- b) the preparer of the general purpose water accounting report.

B167. AWAS 1 also requires an explicit statement of whether the general purpose water accounting report is presented fairly in accordance with AWAS to be provided by the assurance practitioner in an assurance report accompanying the general purpose water accounting report.

B168. The assurance function, undertaken by an appropriately qualified and independent assurance practitioner, is important to enhancing users' confidence in the veracity of the information being presented in a general purpose water accounting report. For this reason, the WASB decided to include in AWAS 1 a requirement for an assurance report. However, while AWAS 1 requires an assurance report to be provided, it does not prescribe:

- a) the level of assurance to be provided; or
- b) the criteria against which an assurance practitioner's qualifications and independence should be assessed.

B169. The WASB and the Auditing and Assurance Standards Board (AUASB) are working jointly on the development of an assurance standard for water accounting.

B170. Some respondents to the ED AWAS 1 suggested that AWAS 1 should include guidance on the level of assurance that should be provided by independent assurance providers. The WASB noted that this matter is currently being considered jointly by the WASB and the AUASB. The WASB anticipates that guidance on this issue will be the subject of a future Exposure Draft and Australian Water Accounting Standard.

Defined terms (Appendix)

Water entity

B171. A number of respondents commented on the definition of a *water entity* included in the ED AWAS 1, noting a range of difficulties in its interpretation and application. After considering these comments, the WASB agreed that the definition could be simplified without limiting its application. The WASB therefore decided to:

- a) replace '*A physical entity, organisation or individual*' in the definition with '*An entity*'; and
- b) exclude from the definition '*has responsibilities relating to the management of water*'.

Notes



Australian Government
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For more information, visit:

www.bom.gov.au/water/standards/wasb