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Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports

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Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports

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Preamble

The Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports comprises a Preface and eight Statement of Water Accounting Concepts (SWAC). The Water Accounting Conceptual Framework guides the development of Australian Water Accounting Standards to ensure they remain cohesive and integrated. General purpose water accounting report preparers can also draw on the Water Accounting Conceptual Framework for principle-based guidance in assisting the preparation and presentation of general purpose water accounting reports where Australian Water Accounting Standards are not sufficient for their requirements.

The Preface and the Statement of Water Accounting Concepts are set out in paragraphs. All the paragraphs have equal authority. Paragraphs in **bold type** state the main principles.

Terms defined in the Glossary of Terms appear in *italics*.

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Purpose

1. The Council of Australian Governments' National Water Initiative (NWI, 2004, para.80) requires the development of *water* resource accounting to ensure that '*adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for environmental and other public benefit outcomes.*'

2. Consistent with the NWI, the purpose of this Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports is to underpin the development of *water accounting* as a robust discipline. More specifically, this Water Accounting Conceptual Framework underpins the development of Australian Water Accounting Standards which guide the preparation and presentation of *general purpose water accounting reports*. *General purpose water accounting reports* are designed to inform users about how *water* has been sourced, managed, shared and utilised during the *reporting period* and to enhance public and investor confidence in the amount of *water* available, allocated, traded, extracted for consumptive use and recovered and managed for environmental and other public benefit outcomes.

3. Similar to the way general purpose financial reports assist financial and business decision making, *general purpose water accounting reports* provide information that is relevant, reliable, comparable and understandable. While general purpose financial reports provide financial information for economic decision making, *general purpose water accounting reports* provide information useful to users for making and evaluating decisions about the allocation of resources.

4. This preface identifies some users of *general purpose water accounting reports*, the common information needs of such report users and the broad types of information, consistent with those needs, that *general purpose water accounting reports* should provide.

5. The purposes of the Water Accounting Conceptual Framework are to:

    a) assist *water accounting* standard setters to develop future Australian Water Accounting Standards consistent with the Water Accounting Conceptual Framework, and to review existing Australian Water Accounting Standards;

    b) assist *water accounting* standard setters to promote the comparability and harmonisation of current or potential national and international *water accounting* regulations, standards and procedures relating to the preparation and presentation of *general purpose water accounting reports*;

    c) assist preparers of *general purpose water accounting reports* to apply Australian Water Accounting Standards and to deal with topics that have yet to form the subject of an Australian Water Accounting Standard;

    d) assist assurers to form an opinion as to whether *general purpose water accounting reports* conform with Australian Water Accounting Standards;

    e) assist users of *general purpose water accounting reports* to interpret the information contained in *general purpose water accounting reports* prepared in conformity with Australian Water Accounting Standards; and

    f) provide those who are interested in the work of the *water accounting* standard setters with information about the concepts underpinning the formulation of Australian Water Accounting Standards.

Scope

6. This Water Accounting Conceptual Framework sets out the concepts that underlie the preparation and presentation of *general purpose water accounting reports* that underpin reporting to users who are unable to command the preparation of *special purpose water accounting reports* tailored to meet their particular *water* information needs. The Water Accounting Conceptual Framework defines and explains the concept of a *water report entity* for which *general purpose water accounting reports* shall be prepared and sets out the objective of *general purpose water accounting reports*. This objective has implications for the type of information to be included in *general purpose water accounting reports* and for the manner in which such information is to be communicated to report users. The Water Accounting Conceptual Framework also provides guidance regarding the qualities that information should possess to meet the objective of the *general purpose water accounting reports*, and the nature and quantification of the elements of the *water accounting reports*. These and other matters are the subject of Statements of Water Accounting Concepts, and Australian Water Accounting Standards.

7. The Water Accounting Conceptual Framework comprises the following Statement of Water Accounting Concepts:
   a) SWAC 1 Objective of General Purpose Water Accounting Reports;
   b) SWAC 2 The Water Report Entity;
   c) SWAC 3 Qualitative Characteristics of General Purpose Water Accounting Reports;
   d) SWAC 4 Elements of General Purpose Water Accounting Reports;
   e) SWAC 5 Recognition of the Elements of General Purpose Water Accounting Reports;
   f) SWAC 6 Quantification of Attributes of Elements of General Purpose Water Accounting Reports;
   g) SWAC 7 Disclosures in General Purpose Water Accounting Reports; and
   h) SWAC 8 Assurance of General Purpose Water Accounting Reports.

8. The Water Accounting Conceptual Framework is not an Australian Water Accounting Standard and hence does not establish requirements for any particular recognition, quantification or disclosure issue. Nothing in this Water Accounting Conceptual Framework overrides any specific Australian Water Accounting Standards.

9. The Water Accounting Conceptual Framework is concerned with *general purpose water accounting reports*. Such reports are directed toward the common information needs of a wide range of report users. The frequency of *water accounting report* preparation and presentation is determined by the information needs of report users and existing laws, regulations and reporting practices. Many report users are likely to rely on *general purpose water accounting reports* and such reports should, therefore, be prepared and presented with their needs in mind.

10. The nature of *general purpose water accounting reports* is likely to vary across different types of *water report entities*. For many *water report entities*, however, *general purpose water accounting reports* include:
    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.

11. An *Assurance* Report by an appropriately qualified individual is required even though not a component of a *general purpose water accounting report*.

12. *General purpose water accounting reports* may also include other reports or notes that serve the needs of report users who do not have the ability to command the preparation of *special purpose water accounting reports*. Additional schedules and supplementary information may deal, for example, with information about *water* quality, geographical segment information and disclosures about different aspects of the *water* market.

13. The preparation and presentation of *special purpose water accounting reports* is outside the scope of the Water Accounting Conceptual Framework. *Special purpose water accounting reports* are *water accounting reports* tailored to meet specific information needs of a user able to command this information and may include, for example, reports of *water* balances and *water* trade or *water* allocation projections that are prepared by a *water* authority for a bank or other lender that is assessing the authority's viability for funding of infrastructure. Another example of *special purpose water accounting reports* would be reports of *water* usage, *water* quality and *water*-related environmental impact prepared by a privately-owned mining company for the purpose of a divestiture or sale of a mine to a private investor.

14. While the Water Accounting Conceptual Framework is developed to underpin *general purpose water accounting reports* and not *special purpose water accounting reports*, this does not preclude the use of the Water Accounting Conceptual Framework in the preparation and presentation of *special purpose water accounting reports*.

Purpose of general purpose water accounting reports

15. *General purpose water accounting reports* are not an end in themselves, but are a means of communicating relevant and reliable *water* information about a *water report entity* to report users. The objective of *general purpose water accounting reports* specified in the Water Accounting Conceptual Framework derives from the information needs of those identified as the users of *general purpose water accounting reports*. Those needs depend, in turn, on the functions and responsibilities relating to *water report entities* and the decisions report users make based on these functions and responsibilities.

16. The functions and responsibilities of the management or governing bodies of *water report entities* vary considerably and cover matters such as the management and control of *water* resources via *water* policy; *water* sharing plans or access licensing regimes; the investment in and management of infrastructure to store *water* and physically regulate the operation of river systems; the management of infrastructure and the delivery of urban *water* supply and reticulated sewerage services or rural *water* supply and irrigation drainage services; the economic or environmental oversight or regulation of urban *water* utilities or rural *water* service providers; and the holding of *water* entitlements and the management of *water*-dependent business enterprises. The management or governing body of a *water report entity* will often be both a provider of information to report users via *general purpose water accounting reports* and a user of information via *general purpose water accounting reports* of other *water report entities*. The management or governing bodies of *water report entities* influence members of the communities they serve through many means such as by providing access to *water* resources, protecting the quality of *water* resources, delivering *water* or levying fees for services provided.

17. Members of communities make resource allocation decisions in respect of the information reported about *water report entities*—that is, they make informed choices among alternative uses of scarce resources. For example, governments and parliaments decide whether to impose restrictions on the use of *water* or whether to fund particular environmental or *water*-related programs; environmentalists decide whether to lobby for or against particular policies or projects that affect the demand or supply of *water* resources for particular purposes; investors decide whether to invest in *water* businesses, projects and products; creditors decide whether to provide resources to a *water*-dependent business or *water* management authority; * individuals, businesses or other groups decide whether to donate financial or *water* resources to an environmental site or other public benefit outcome; employees decide whether to provide their labour services to a particular *water*-dependent

or other *water*-related entity; and ratepayers and community lobby groups decide whether they should support the particular programs run by the management or governing body of a *water report entity*. In addition, owners of *water*-dependent businesses and holders of *water* entitlements (such as irrigators) make decisions about whether to plant crops, buy or sell claims or *rights to water*, and utilise or store *water* based on information provided about *water report entities*.

18. Allocation of scarce resources will be enhanced if those who make resource allocation decisions, such as the groups identified above, have appropriate information on which to base their decisions. *General purpose water accounting reports* aim to provide a key component of this information.

19. *General purpose water accounting reports* can also enable the management and governing bodies of *water report entities* to demonstrate the discharge of *accountability*. The management and governing bodies are accountable for planning and conducting operations in ways that effectively utilise available resources sustainably and equitably. In a broader sense, because of the influence *water report entities* exert in relation to economic, environmental and social dimensions of communities, the management or governing bodies can be accountable to the public at large. While the *accountability* of management and governing bodies of *water report entities* can be complex and depend on many factors, *general purpose water accounting reports* provide information useful for assessing whether this responsibility has been discharged appropriately. For example, governments and parliaments assess the *accountability* of *water* managers for the management of *water* resources under their control—be it for economic, environmental or social (including health-related and *water* supply security for critical human needs) purposes. Other bases on which the *accountability* of managements and governing bodies may be understood include comparisons against targets, plans and policies that are either internal or external (such as operational plans, *water* sharing plans and jurisdictional legislation). It is understood that the *accountability* of these governing bodies will be detailed and discharged through the information captured in *general purpose water accounting reports*—most notably in the Contextual Statement and the Assurance Report.

Report users and their information needs

20. The users of *general purpose water accounting reports* are likely to fall into a broad range of categories. These include:
    - *water* users—environmental, agricultural, urban, industrial and commercial;
    - investors in *water* dependent enterprises and related parties such as lenders, creditors, suppliers, insurers and *water* traders and *water* brokers;
    - government representatives and their advisors, including *water* related economic, environmental and social policy makers;
    - *water* industry regulators;
    - *water* managers including environmental *water* managers and *water* service providers, who may be interested in not just the *water entities* they manage but *water entities* they depend on or compare to;
    - groups and associations with *water* related interests;
    - *water* industry consultants;
    - academics; and
    - interested citizens.

21. *General purpose water accounting report* users' information needs can vary enormously based on particular circumstances and the type of decisions or assessments the report users make. The range of information needs is likely to encompass subjects and matters such as:
    - the availability, commitment and quality of *water* resources and associated trends;
    - whether management objectives for *water* resource management are being met and, if not, why not;

- the development and review of *water* resource policy;
- the comparison (both over time for a particular *water report entity* and between similar *water report entities*) of annual *water* allocations, extractions, returns and of particular in-situ *water* levels and flows; and
- the extent of *water* entitlement and annual *water* allocation trading and associated trends.

22. Another category of *general purpose water accounting report* users comprises the preparers of *water accounting reports* and those who contribute to the preparation. This category is likely to include managers, officers, or contractors of organisations with responsibilities for managing *water* resources, such as *water* agencies, *water storage* and river managers, or *water* utilities. Report preparers and contributors are likely to be interested in previous *water accounting reports* which they have prepared or helped to prepare in order to source comparative information or to show trends which are to be disclosed. They are also likely to be interested in *water accounting reports* of other *water report entities* in order to compare and refine report presentation and style.

Application

23. The concepts in this Water Accounting Conceptual Framework underpin general purpose *water* reporting. The Water Accounting Conceptual Framework is used as a foundation for the drafting of Australian Water Accounting Standards and can guide *general purpose water accounting report* preparers where an Australian Water Accounting Standard does not address an issue.

24. The Water Accounting Conceptual Framework applies to *general purpose water accounting reports* of all *water report entities* operating in the public or the private sector, in the for-profit and not-for-profit sector, in any industry, and operating in any state, territory, or combination of states or territories.

25. Situations may arise where there is a conflict between the Water Accounting Conceptual Framework and an Australian Water Accounting Standard. In the event of a conflict, the requirements of the Australian Water Accounting Standards prevail over those of the Water Accounting Conceptual Framework.

26. This Water Accounting Conceptual Framework applies to *general purpose water accounting reports* for periods commencing on or after 1 July 2014. Early adoption of this Water Accounting Conceptual Framework is permitted prior to this date.

27. The Water Accounting Conceptual Framework will be revised as required.

Citation

28. The Water Accounting Conceptual Framework for the Preparation and Presentation of General Purpose Water Accounting Reports is cited in Australian Water Accounting Standards as the Water Accounting Conceptual Framework, or WACF.

Comparison with international pronouncements

29. The Water Accounting Conceptual Framework draws upon, where useful:
    a) The Framework for the Preparation and Presentation of Financial Statements issued by the Australian Accounting Standards Board (AASB);

b) The Framework for the Preparation and Presentation of Financial Statements issued by the International Accounting Standards Board (IASB); and
c) Principles enunciated in other fields including natural resource management and corporate social responsibility reporting.

Glossary of terms

For the purposes of this Water Accounting Conceptual Framework, the glossary of terms includes:

Accountability includes, but is not limited to, responsibilities under legislation, regulations or operational plans. It also means the responsibility to provide information to enable report users to make informed judgements about the management of *water* resources.

Accrual basis of water accounting means recording and reporting the effects of transactions, transformations and other events when the decision or commitments that give rise to them occur. This may not necessarily be the time at which *water* is transferred or transformed. Accrual *water accounting* ensures that transactions, transformations and other events are recorded in and reported in the *reporting periods* to which they relate.

Assurance is an independent attestation that the reports have been prepared in accordance with Australian Water Accounting Standards and other pronouncements governing the content of the reports and consistent with the concepts in the Water Accounting Conceptual Framework. *Assurance* reduces the risk that the information provided is incorrect.

Claims to water means a *right to water* or an interest or claim associated with a *right to water*.

Compliance means adherence to relevant externally-imposed requirements, or with broader notions of best practice relevant to *water report entities*, such as statutory requirements, regulations, rules, ordinances, or directives, in respect of which non-*compliance* may have, or may have had, an economic, environmental or social effect.

General purpose water accounting report means a *water accounting report* intended to meet information needs common to report users who are unable to command the preparation of *water accounting reports* tailored to satisfy their information needs. A *general purpose water accounting report* is prepared in accordance with Australian Water Accounting Standards and comprises a Contextual Statement, an Accountability Statement, *water accounting statements*, and accompanying note disclosures.

Groundwater is sub*surface water* in soils and geological formations that are fully saturated.

Group water accounting report is the *water accounting report* of a *group water report entity* presented as a single *water entity*.

Group water report entity is a *water report entity* comprising single *water entities* and for which a *group water accounting report* is required to be prepared under a regulation, statute or directive.

Legal obligation is an obligation that derives from:

a) a contract;

b) legislation; or

c) other operation of law.

Net water assets is the excess of the *water assets* of the *water report entity* after deducting all of its *water liabilities*.

Reporting date is the end of the last day of the *reporting period*.

Reporting period is the period for which a *water accounting report* is prepared.

Rights to water include a broad array of rights, with associated obligations, to access and use *water* or to have access to *water* infrastructure and may arise from common or statute law. Such rights include but are not limited to: riparian *rights to water* in a stream; *water* access licences or entitlements; annual *water* allocations; the right to a *water* supply service that may be subject to restrictions; shares in *water* distribution infrastructure capacity; the right to trade *water* entitlement or annual *water* allocation.

Special purpose water accounting report is a *water accounting report* tailored to meet the information needs of a user able to command this information.

Surface water is *water* which flows over or is stored on the surface of the earth.

Water is a chemical compound comprising of two atoms of hydrogen and one atom of oxygen. *Water* may exist in solid, liquid or gaseous form.

Water accounting is a systematic process of identifying, recognising, quantifying, reporting, and assuring information about *water*, the rights or other claims to that *water*, and the obligations against that *water*.

Water accounting report may be either a *general purpose water accounting report* or a *special purpose water accounting report*.

Water accounting statements comprise 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 is *water*, or the right or other *claim to water*, which the *water report entity* holds or transfers, and from which the *water report entity*, or stakeholders of the *water report entity,* derive future benefits.

Water entity is an entity that:

a) holds or transfers *water*; or

b) holds or transfers rights or other direct or indirect *claims to water*; or

c) has inflows and / or outflows of *water*.

Water liability is a present obligation of the *water report entity*, the discharge of which is expected to result in a decrease in the *water report entity's water assets* or an increase in another *water liability*.

Water report entity is 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 is the total *water* in *water assets*.

SWAC 1: Objective of General Purpose Water Accounting Reports

Water accounting concepts

1. This Statement specifies that the objective of *general purpose water accounting reports* is to provide information useful to report users of *water accounting reports* for making and evaluating decisions about the allocation of resources.

Concept of the objective of general purpose water accounting reports

2. *General purpose water accounting reports* shall provide information useful to report users for making and evaluating decisions about the allocation of resources.

3. To facilitate the provision of information useful for making and evaluating decisions about the allocation of resources, *general purpose water accounting reports* shall:

a) be prepared in a manner which assists report users to evaluate *accountability* for the management of *water*, rights and other *claims to water*;

b) disclose information that assists report users to assess *compliance* with relevant externally-imposed requirements or with broader notions of best practice relevant to *water report entities;* and

c) include independent *assurance* to report users as to whether the components of the reports are presented in accordance with the requirements of the Water Accounting Conceptual Framework, Australian Water Accounting Standards, and other associated generally accepted *water accounting* practices and principles.

Discussion

Decision-making

4. Decisions about the allocation of resources may include decisions concerning the management or trade of *water* stocks and *water* rights or *water* obligations over time or concerning the provision of *water*-related services in the context of economic, environmental and social policies. They may also relate to other decisions concerning whether to provide debt finance to the *water report entity* or to an organisation affected by the *water report entity's* operations.

5. Other decisions made by *general purpose water accounting report* users may relate to the nature of *water* resources within a geographic area which is not subject to a significant level of human management but which may have an impact on legislation and other *water* policy at a broader level. For example, the nature and extent of deterioration of rivers and environmental sites may require detailed and careful analysis by relevant authorities such as governments to determine any necessary strategic and systematic policy response to ensure the river or site preservation, with implications for the environment and nearby farming and township communities. Such an analysis will be assisted by *general purpose water accounting reports*.

6. *General purpose water accounting reports* will meet the common needs of most report users who are unable to command the production of *special purpose water accounting reports* to satisfy their particular user needs. Since the information needs of various report users for the purposes of decisions relating to economic, environmental and social matters can be many and varied, it is unlikely that *general purpose water accounting reports* will provide all the information that each report user will need to make sound decisions. However, *general purpose water accounting reports* will provide much of the information common to report user needs. Such *water accounting reports* should, where applicable, be read in conjunction with other information prepared about *water report entities*. Relevant additional information may include jurisdictional *water* sharing plans, current market conditions, *water* quality and bio-physical indicators, trading rules and associated fees in certain jurisdictions as well as likely future policy developments and general purpose financial reports. Such information is beyond the scope of this Water Accounting Conceptual Framework.

7. Information contained in *general purpose water accounting reports* will help to address specific decision-making objectives such as those outlined in the National Water Initiative (2004). These specific objectives include, but are not limited to, the preparation of *water accounting* information which:

   a) can assist the implementation of a nationally-compatible market, regulatory and planning-based system of managing *surface water* and *groundwater* resources for rural and urban use that optimises economic, social and environmental outcomes (NWI, 2004, para.23);

   b) is able to meet the information needs of different *water* systems in respect of planning, monitoring, trading, environmental management and on-farm management (NWI, 2004, para.23); and

   c) supports public and investor confidence in the amount of *water* being traded, extracted for consumptive use, and recovered and managed for environmental and other public benefit outcomes (NWI, 2004, para.80). This confidence will underpin decisions regarding the allocation of resources belonging to the general public or specific investors.

8. *General purpose water accounting reports* assist decision-making, but they are not the only information that report users may need to use. For example, the ability of the manager, management group or governing body of a *water report entity* to undertake sustainable *water* resource management will depend on climatic conditions and government policy. Information about relevant government policy that affects the planning and management of the *water* resources attributable to the *water report entity* may therefore be relevant to assessments of *accountability* and management performance. A further example arises where a *water report entity* is subject to a *water*-sharing plan which incorporates minimum environmental flow rates. In such

instances, when evaluating those decisions made by the manager, management group or governing body of the *water report entity* that affect the available *water* resources, *general purpose water accounting reports* should be read in conjunction with information such as *water* sharing agreement/policy details, climate change forecasts and information about levels and distribution of annual rainfall.

Accountability

9. *General purpose water accounting reports* prepared to assist report users to make and evaluate decisions about the allocation of resources will provide information for decisions concerning the discharge of *accountability* for *water* resources by managers, management groups or governing bodies of *water report entities*. Such information may assist report users to make a range of decisions and evaluations including whether *accountability* has been discharged fully or partially, whether changes in regulations, *water* plans or other policies are required, whether emergency or extraordinary measures for irrigators and other *water*-dependent businesses are required and/or are feasible and whether additional investment in *water* infrastructure is required. Those report users who wish to assess *accountability* do so in order that they may understand, for example, whether *water* management has occurred in accordance with broader pronouncements such as the NWI (2004) and the Water Act (2007), other relevant legislation, jurisdictional *water* plans and other regulations and policies, and in light of localised climatic conditions. Other parties with regulatory or oversight functions, such as auditors-general, are concerned with the *accountability* of managers, management groups or governing bodies of *water* authorities and dam and river operators in order to monitor and assess the valuation of public sector assets and the responsible use of public funds.

10. Evaluating the ability of the management or governing bodies of *water report entities* to plan and manage *water* entrusted to them will be assisted by information about how *water* and the *rights to water* have been sourced, managed, shared and utilised. This requires information that focuses on key *water* attributes such as the stocks of available *water* resources, the management of those *water* resources over time and the *water* flows.

General purpose water accounting reports

11. Achieving the objective of *general purpose water accounting reports* involves providing report users with information about *water report entities* that is useful for decision-making. Report users may require information relating to flows of *water*. Further, report users may need information about the quantity, location, and nature of the *water report entity's water* and how the *water* is shared at a particular point in time. Report users may also need information about the changes in the *water assets* and *water liabilities* between two points in time. Their confidence in the information provided is likely to be enhanced by statements of *compliance* with externally-imposed requirements or with broader notions of best practice relevant to *water report entities*, and by independent *assurance* that the preparation and presentation of *general purpose water accounting reports* conform to the requirements of Australian Water Accounting Standards and other associated generally accepted *water accounting* practices and principles.

12. In different contexts, report users may not require information on all of these aspects. In such instances, a subset of this information may be reported for the *water report entity*. The information reported in the *general purpose water accounting reports* will vary according to the nature of the *water report entity*.

Water assets and water liabilities

13. Information about the *water* resources attributable to a *water report entity* and about trades or other changes in rights or obligations relating to *water* is useful in assessing and predicting the ability of the *water report entity* to equitably and sustainably manage the *water* resources entrusted to it. This is particularly so in light of the competing demands for *water* and given the constraints imposed by climatic conditions, government legislation and other policies. Information about *water* rights and *water* obligations is useful in predicting the future availability of *water* and how future inflows may be distributed among those with a right or claim to the *water* attributable to the *water report entity*. Such information, taken together, may be used to inform

predictions of the ability of the manager, management group or governing body of the *water report entity* to meet the current and future commitments against those *water assets* as those commitments become due. In this respect, information on the quantity, location and nature of the *water* attributable to the *water report entity* would be relevant to report users, as would details of significant trades that have occurred and information about legal or equitable (including environmental) entitlements and allocations against the *water assets*. Such information can be provided in a Statement of Water Assets and Water Liabilities.

Changes in water assets and water liabilities

14. Information about the management of *water* attributable to the *water report entity*, prepared on an accrual basis, will assist the understanding and assessment of current and potential future changes in the availability of *water*. Information about the variability of *water* management practices such as allocation decisions made over time is important in this respect. It is also useful in forming predictions about how additional *water* might be employed in future should such *water* become available. Information about *water* management and the performance of a *water report entity* in obtaining, managing, sharing or utilising *water* is primarily provided in a Statement of Changes in Water Assets and Water Liabilities.

Water flows

15. To achieve the objective of *general purpose water accounting reports*, *water report entities* shall provide information about how the *water* and the rights to that *water* have been sourced, managed, shared and used.

16. Information about the management of available *water* in a Statement of Changes in Water Assets and Water Liabilities will only partially explain changes in the *water* available from a *water report entity*. Additional information about the flows of *water* attributable to the *water report entity* is also useful in assessing movements in the available *water* during the *reporting period* and will assist in providing report users with a basis to assess the ability of the *water report entity* to deliver sustainable *water* supply. This is particularly the case where *water* rights or *water* obligations are permitted to carry over from one *reporting period* to the next. Information about the flows of *water* in distribution channels or watercourses can be provided in a Statement of Water Flows.

17. Different elements of *general purpose water accounting reports* may reflect different aspects of the same *water* related balances, transactions, transformations and events. Although each statement described in paragraphs 13-16 provides information that is different from the others, none is likely to serve only a single purpose or provide all the information necessary for particular needs of report users. For example, a Statement of Changes in Water Assets and Water Liabilities may provide an incomplete picture of *water* management unless it is used in conjunction with the Statement of Water Assets and Water Liabilities and the Statement of Water Flows.

Notes and supplementary schedules

18. *General purpose water accounting reports* may also include notes and supplementary schedules which provide additional relevant information about the items in the Statement of Water Assets and Water Liabilities, the Statement of Changes in Water Assets and Water Liabilities and the Statement of Water Flows. They may include disaggregated information about items in the statements, narrative explanations of the material judgements and assumptions made and estimates used in preparing the statements, or disclosures about the risks and uncertainties affecting *water report entities*. Information about primary *water* systems or sources which comprise the *water report entities*, aspects of *water* quantity and quality, information relating to *water* markets, and the effect on the *water report entity* of changing climatic conditions and other factors are further examples of items that might be disclosed as supplementary information.

19. *General purpose water accounting report* users are also likely to be interested in information relating to *water* markets not otherwise contained in particular *water*-related statements. Such information may include for example, summary information about the nature of trades that have occurred during the relevant period by jurisdiction – specifying the source and destination of *water* that was traded, the quantity and nature of the

water product traded and the average prices paid. In addition, useful information about *water* trades might include the intended use of the *water*.

Compliance and assurance

20. Concepts relating to *compliance* and *assurance* in respect of *general purpose water accounting reports* are outlined in SWAC 7 and SWAC 8 respectively within the Water Accounting Conceptual Framework.

21. Information about *compliance* is relevant to making and evaluating decisions about the allocation of *water* resources because knowledge of non-*compliance* with externally-imposed requirements, internal plans, or with broader notions of best practice relevant to *water report entities* may affect resource allocation decisions made by report users. For example, information about externally-imposed *compliance* requirements that may be relevant to report users includes performance in relation to minimum passing flows, maximum diversion rates and *water* saving targets, and *water* quality levels.

22. *Assurance* refers to the attestation of whether the presentation of *general purpose water accounting reports* conforms to the requirements of Australian Water Accounting Standards and other associated generally accepted *water accounting* practices and principles. The *assurance* function, undertaken by an independent *assurance* practitioner, is an important aspect of enhancing report users' confidence in the veracity of the information being utilised to inform decision-making.

Assumptions underlying the preparation and presentation of general purpose water accounting reports

23. In order to realise the objective of *general purpose water accounting reports*, the reports should contain information that is recorded and processed in a rigorous and robust fashion. Recording *water*-related information using a systematic approach will facilitate meeting this objective.

Accrual basis of water accounting

24. In order to meet the objective of *general purpose water accounting reports*, preparation of a Statement of Water Assets and Water Liabilities or a Statement of Changes in Water Assets and Water Liabilities on an accrual basis, is likely to be required. Applying the *accrual basis of water accounting* means that the effects of transactions, transformations and events are recognised when commitments which give rise to them occur. This may not necessarily be the time at which *water* is transferred or transformed. The *accrual basis of water accounting* ensures that transactions, transformations and events are recorded in the Statement of Water Assets and Water Liabilities or Statement of Changes in Water Assets and Water Liabilities in the periods to which they relate. For example, a *legal obligation* to provide *water* from a particular catchment area would be recognised as a *water liability* in relation to the *water report entity* in that *reporting period*, even though *water* has not been transferred in that period. *General purpose water accounting reports* prepared on an accrual basis inform report users not only of past transactions, transformations or events involving the transfer or transformation of *water* but also of commitments or obligations to transfer or transform *water* in the future and of resources that represent *water* to be transferred or transformed in the future. Hence, they provide the type of information about past transactions, transformations and events that is useful to report users in making and evaluating decisions about the allocation of resources.

25. The *accrual basis of water accounting* is appropriate where unused *water* rights or *water* obligations continue to exist from one *reporting period* to the next. In some cases, the *water* rights or *water* obligations do not exist across *water reporting periods*. In these cases, the *accrual basis of water accounting* may provide little additional information to report users and the accrual-based Statement of Changes in Water Assets and Water Liabilities may not be needed. In such instances, the Statement of Water Flows and the Statement of Water Assets and Water Liabilities are likely to be the primary source of information to report users.

SWAC 2: The Water Report Entity

Water accounting concepts

1. The purpose of this Statement is to define and explain the concept of a *water report entity*.

2. If a *water entity* does not meet the definition of a *water report entity* under this Statement, that does not preclude other parties with the authority to do so (for example, regulatory authorities) from imposing a requirement for *water accounting reports* to be prepared for that *water entity*.

Concept of the Water Entity

3. A *water entity* is an entity that:

a) holds or transfers *water*; or

b) holds or transfers rights or other direct or indirect *claims to water*; or

c) has inflows and / or outflows of *water*.

4. A *water entity* can be physical, an organisation, or an individual. A *water entity* that is physical comprises *water* features that occur naturally. A lake, for example, holds *water* and it also has inflows or outflows in the form of precipitation and evaporation. This type of *water entity* would therefore be regarded as a physical *water entity*. An organisation that is a *water entity* may be a body established under statute. A mining, or manufacturing company that uses *water* in its operations would meet the definition of a *water entity* organisation. An individual *water entity* is a *water entity* that operates a business or is named in legislation. An individual *water entity* could be an irrigator or an environmental *water* holder.

Concept of the Water Report Entity

5. A *water report entity* is a *water entity* 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.

Preparation of general purpose water accounting reports

6. *General purpose water accounting reports* prepared and presented in accordance with the Water Accounting Conceptual Framework and Australian Water Accounting Standards shall be prepared in relation to *water report entities*.

Discussion

Water accounting reports

7. Statement of Water Accounting Concepts 1 *Objective of General Purpose Water Accounting Reports* (SWAC 1) states that *general purpose water accounting reports* are prepared to provide report users with information about a *water report entity* which is useful for making and evaluating decisions about the allocation of resources. These decisions may include, but are not limited to, decisions concerning how *water* and the rights or other *claims to water*, will be sourced, managed, shared and used. Such decisions can be informed by *water accounting reports* about *water* and how the *water* rights or other *claims to water* have been sourced, managed, shared and used.

8. When *general purpose water accounting reports* meet this decision usefulness objective they will assist report users to evaluate *accountability* for the management of *water* resources.

9. If Statements of Water Accounting Concepts and Australian Water Accounting Standards are to be effective in ensuring adequate provision of information to users of *general purpose water accounting reports*, it is necessary that *general purpose water accounting reports* are prepared in relation to those *water entities* that are also *water report entities*. *General purpose water accounting reports* are not required for those *water entities* that are not *water report entities*.

10. *General purpose water accounting reports* should be prepared when it is reasonable to expect the existence of users dependent on *water accounting reports* for information about *water*, or rights or other *claims to water*, which shall be useful to them for making and evaluating decisions about the allocation of resources and where these report users are unable to command the preparation of *special purpose water accounting reports* to satisfy their information needs. Further, their information needs will have elements in common. As such, *general purpose water accounting reports* will be required to provide report users with appropriate information for making and evaluating resource allocation decisions.

Water Report Entity concept

11. While in some instances a *water report entity* will be a single *water entity*, in other instances a *water report entity* will comprise a group of *water entities* (*group water report entity*). Some entities within the *group water report entity* may be *water report entities* themselves.

12. Legislation does not define the concept of a *water report entity*; nor does it prescribe who shall prepare *general purpose water accounting reports* in most cases. However, the Water Act 2007 requires the Bureau of Meteorology (Bureau) to compile and maintain *water* accounts for Australia, including a set of *water* accounts to be known as the National Water Account even though the Bureau is not directly responsible for national *water* management and distribution. This requirement demonstrates that the preparer of *general purpose water accounting reports* does not need to be the *water report entity* for which those *water accounting reports* are prepared. This is most obvious where the *water entity* is physical in nature.

13. This Statement adopts a *water report entity* concept that is tied to the information needs of report users. Report users may be individuals or organisations with an interest in *water* resources. There is a wide range of potential *general purpose water accounting report users*. Report users may include, but are not limited to, industry, environmentalists, ratepayers, policy makers, and irrigators.

14. This Statement requires that *water report entities* shall be identified by reference to the existence of users who depend on *general purpose water accounting reports* for information about *water*, rights or other *claims to water* for making and evaluating decisions about the allocation of resources. *Water report entities* are a subset of *water entities* and may be physical, an organisation, or an individual.

15. The concept of the *water report entity* adopted by this Statement does not depend on the sector (public or private) within which the *water entity* operates or the purpose for which the *water entity* was created (business or non-business/profit or not-for-profit). Nor does the concept of the *water report entity* depend on whether the *water entity* is constituted as a legal entity or other type of entity. It is a concept which is tied to the objective of *general purpose water accounting reports* which requires *general purpose water accounting reports* to be prepared for *water entities* with report users dependent on information in *general purpose water accounting reports* for making and evaluating decisions about the allocation of resources.

Identification of whether general purpose water account report users exist

16. For the purposes of this Statement, the identification of a *water entity* as a *water report entity* is linked to the information needs of users of *general purpose water accounting reports* for making and evaluating decisions about the allocation of resources. In many instances, it will be readily apparent whether, in relation to a *water entity*, there are users who depend on *general purpose water accounting reports* as a basis for making and evaluating these decisions. User categories may include, but are not limited to, *water* infrastructure providers, recipients of *water* and *water* services and parties performing a regulation or oversight function of *water entities* and *water*-related decisions.

17. For those *water entities* where it is not readily apparent that report users dependent on *general purpose water accounting reports* exist, the factors outlined in paragraphs 18 and 19 are identified as significant factors to be considered in determining whether a *water report entity* exists. Other factors may also be relevant in determining whether a *water entity* is a *water report entity*.

Separation of management from economic, environmental or social interest

18. The greater the extent of the separation between management and parties with an economic, environmental or social interest in the *water entity*, the more likely it is that there will exist report users who depend on *general purpose water accounting reports* as a basis for making and evaluating resource allocation decisions.

Economic, environmental and social importance/influence

19. The greater the economic, environmental or social importance of a *water entity*, the more likely it is that there will be users who depend on *general purpose water accounting reports* as a basis for making and evaluating resource allocation decisions. *Water report entities* identified on the basis of this factor are likely to include *water entities* with significant inflows and outflows of *water*; or significant holdings of *water* or rights or other *claims to water*.

Implications of the criteria for identifying of a Water Report Entity

20. The concept of the *water report entity* in this Statement is related to the information needs of users. Judgement will be required in determining whether a *water entity* is a *water report entity*.

21. The implications of the factors listed in paragraphs 18 and 19 are that most government departments, private *water* businesses and statutory authorities that play a role in *water* policies, *water* management, *water* allocation or *water* delivery are likely to be *water report entities*. This arises because of the separation between the parties with an economic, environmental or social interest in *water*-related decisions and the parties responsible for making those decisions.

22. An implication of applying the *water report entity* concept to a public sector *water entity* is that a government as a whole, whether at the Federal, State, Territorial or local government level, would be identified as a *water report entity* because it is reasonable to expect that users will require *general purpose water accounting reports* to facilitate their decision making in relation to the *water* policies, management, planning, allocation and delivery decisions made by, and *accountability* of, those governments. At a lower level of reporting, a

number of individual statutory authorities and departments (and the entities they control) may also be defined as *water report entities* because of their economic, environmental or social significance.

23. Classification as a *water report entity* may not be constant from one *reporting period* to the next.

Groups of Water Entities as Water Report Entities

24. A *water report entity*, as defined in this Statement, can comprise a group of single *water entities*. If it is reasonable to expect that there is a single *water entity* or a group of *water entities* for which there are users who depend on *general purpose water accounting reports* for information about *water*, or rights or other *claims to water*, which shall be useful to them for making and evaluating decisions about the allocation of resources, then that single *water entity* or group of *water entities* is a *water report entity*. The fact that a group of *water entities* (for example, river systems within a state or territory) may collectively form a *water report entity* does not affect whether any of the *water entities* are *water report entities* in their own right.

Implications of the Water Report Entity concept for differential reporting

25. Statements of Water Accounting Concepts and Australian Water Accounting Standards are applicable to all *water report entities* for which *general purpose water accounting reports* are prepared.

26. Bases that have been proposed for identifying *water entities* for which *general purpose water accounting reports* would not need to be prepared, but which are not supported by this Statement, include:

    a) the size of the *water entity*;

    b) ownership characteristics; and

    c) a combination of size and ownership characteristics.

27. In this Statement, the need to prepare *general purpose water accounting reports* is linked to the existence of users who depend on *general purpose water accounting reports* for making and evaluating decisions about the allocation of resources. The existence of users dependent on *general purpose water accounting reports* is not determined by either the size or the ownership characteristics of a *water entity*. Accordingly, the bases outlined in the preceding paragraph are not supported by this Statement. However, the *water report entity* concept enunciated in this Statement embodies a concept of differential reporting in that certain *water entities* will not be identified as *water report entities* and thus would not be required to prepare *general purpose water accounting reports* or comply with Statements of Water Accounting Concepts and Australian Water Accounting Standards in their preparation. The *water entities* for which *general purpose water accounting reports* do not need to be prepared are those in respect of which it is reasonable to expect that users do not exist who are dependent upon information contained in *general purpose water accounting reports* for making and evaluating decisions about the allocation of resources.

SWAC 3: Qualitative Characteristics of General Purpose Water Accounting Reports

Water accounting concepts

1. The purpose of this Statement is to describe those qualitative characteristics of *general purpose water accounting reports* that make the information contained therein useful for making and evaluating decisions about the allocation of resources.

Concepts of the qualitative characteristics of general purpose water accounting reports

2. In order for *general purpose water accounting reports* to satisfy their intended objective, the information contained in those reports shall possess qualitative characteristics, or attributes, that make the information useful to report users for making and evaluating resource allocation decisions.

3. The principal qualitative characteristics are relevance, faithful representation, comparability, verifiability, timeliness and understandability.

4. Information is relevant when it influences, or has the capacity to influence, the decisions of report users about the allocation of resources.

5. Information is a faithful representation when the information depicting economic, environmental or social phenomena is complete, neutral and free from material error.

6. Information is comparable when report users are able to meaningfully compare the information in *general purpose water accounting reports* about different *water report entities* at the same point in time or for the same *reporting period*, or when report users can meaningfully compare the information about the same *water report entity* over time.

7. Information is verifiable when users of *general purpose water accounting reports* can be assured that information faithfully represents the phenomena that it purports to represent.

8. Information is timely when it is available to users of *general purpose water accounting reports* before it loses its relevance for resource allocation decisions.

9. Information is understandable if users of *general purpose water accounting reports* can comprehend its meaning.

10. Providing information in *general purpose water accounting reports* that satisfies the objective of usefulness is subject to materiality and cost constraints.

Discussion

Qualitative characteristics of general purpose water accounting reports

11. The qualitative characteristics are complementary concepts. Relevance and faithful representation are fundamental concepts when considering how qualitative characteristics affect the usefulness of information. When preparing *general purpose water accounting reports*, relevance and faithful representation should be maximised to the extent possible.

12. Comparability, verifiability, timeliness and understandability are enhancing qualitative characteristics. Enhancing characteristics make information that is relevant and faithfully represented more useful. In practice, a balancing, or trade-off, between enhancing qualitative characteristics may be necessary. Generally, the aim is to achieve an appropriate balance among the characteristics in order to meet the objective of *general purpose water accounting reports*. For example, to achieve timeliness in the reporting of *water* resources it may be necessary to sacrifice some degree of verifiability.

Relevance

13. An essential quality of the information provided in *general purpose water accounting reports* is that it is relevant to the decision-making needs of report users. Information is considered to be relevant when it influences, or has the capacity to influence report users' decisions about the allocation of resources. Information is capable of influencing report users' decisions when it has predictive value, confirmatory value or both. Information is useful if it assists report users by helping them to understand and evaluate past, present or future *water* events, transactions or transformations.

14. Information has predictive value if it has value as an input to predictive processes applied by *general purpose water accounting report* users to form expectations about the future, for example, about future *water* stocks, flows and rights or *claims to water*. To have predictive value, information does not need to be a forecast but rather a useful input to the predictive processes of report users.

15. Information about *water assets* and *water liabilities* and changes in those *water assets* and *water liabilities* during a *reporting period* can frequently be used as a basis for predicting the *water report entity's* future position and performance in relation to *water* as well as other matters in which report users are directly interested. Such matters may include, but are not limited to, dividend and security price movements which are affected by the management or governing body's *compliance* with those *water* rights or *water* obligations which determine the ability of the *water entity* to meet its economic, environmental and social commitments as they fall due. The ability to make predictions from *general purpose water accounting reports* is enhanced, however, by the manner in which information on past transactions, transformations and events is displayed. For example, the predictive value of *general purpose water accounting reports* is enhanced through the separate disclosure of unusual and infrequent items appearing in those reports, such as the *water*-related outcomes of extreme weather conditions that have occurred during the *reporting period*.

16. Information has confirmatory value if it confirms, or changes, past or present expectations. Information that confirms past expectations increases the likelihood that the outcomes or results will be as previously expected. Information that changes expectations, changes the perceived probabilities of possible outcomes. For example, information about the current level and structure of *water* holdings influences report users' assessments of the probability that *water* rights or *water* obligations will result in inflows or outflows of *water*.

17. The predictive and confirmatory roles of information are interrelated. For example, information about the current level and structure of *water asset* holdings and any *water* rights or *water* obligations related to those holdings, is relevant to report users when they endeavour to predict the extent to which additional *water*

may be made available in response to adverse situations such as droughts. The same information plays a confirmatory role in relation to past predictions about, for example, the availability of *water* to drought stricken communities.

Faithful representation

18. An essential quality of *general purpose water accounting reports* is that information contained in the *water accounting reports* faithfully represents the underlying data needed to serve the decision-making needs of report users. Information is considered to be a faithful representation when it is complete, neutral and free from material error. Thus, for example, elements of a statement in a *general purpose water accounting report* should represent faithfully the transactions, transformations and events that result in reported *water assets*, *water liabilities* and *net water assets* of the *water report entity* at the *reporting date* or for the *reporting period*.

Complete

19. Information in *general purpose water accounting reports* is complete if it includes all information that is necessary for faithful representation of the phenomena that it purports to represent. Information that is incomplete, omitted or is false and misleading is not useful for users' decision making. For example, reporting the *water asset* holdings in the absence of reporting the rights or claims to the *water* holdings would be an omission that reduces the usefulness of the information.

Neutral

20. Information in *general purpose water accounting reports* is a faithful representation if it is neutral, that is, 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 *water accounting reports* (for example, the management groups or governing bodies of *water report entities* or potential investors in *water report entities*) to achieve a particular result or outcome.

Free from material error

21. Most information is subject to some risk of being less than a faithful representation of that which it purports to portray. Faithful representation does not mean that the information needs to be exact. Nor does it imply total freedom of error. The information presented in *general purpose water accounting reports* is measured under conditions of uncertainty and thus absolute precision and freedom of error cannot be expected. There exist multiple acceptable approaches to quantifying different elements of *general purpose water accounting reports*, and different approaches may require estimation rather than exact measurement. Accordingly, the amounts recognised in *general purpose water accounting reports* are likely to vary according to the application of judgment about appropriate methods and estimates. Disclosures of the quantification issues may be required in such cases to render the information a faithful representation.

22. Information may sometimes be relevant but so unreliable in nature or representation that its recognition, quantification or disclosure may be potentially misleading. This may result in non–disclosure within *general purpose water accounting reports*. In such cases, qualitative information by way of note disclosure may be appropriate.

Comparability

23. An enhancing quality of the information provided in *general purpose water accounting reports* is comparability. Decision making involves choosing between alternatives. 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 *water report entity* for some other *reporting period* or some other point in time.

24. Report users must be able to compare the *general purpose water accounting reports* of a *water report entity* through time in order to identify trends. Report users must also be able to compare the *general purpose water accounting reports* of different *water report entities* in order to evaluate their relative positions and trends in relation to *water* resources.

25. An important implication of the qualitative characteristic of comparability is that report users are informed of the *water* recognition and measurement accounting policies employed in the preparation of a *general purpose water accounting reports*, any changes in those policies and the effects of such changes. Report users need to be able to identify differences between the *water accounting* policies for like *water* transactions, transformations and events used in relation to the same *water report entity* from period to period and by different *water report entities*. *Compliance* with Australian Water Accounting Standards, including the disclosure of the *water accounting* policies used by the *water report entity*, helps to achieve comparability.

26. The need for comparability should not be confused with mere uniformity and should not become an impediment to the introduction of improved *water accounting* standards. It is not appropriate for the preparer of *general purpose water accounting reports* to continue accounting in the same manner for a *water* transaction, transformation or event if the policy adopted is inconsistent with the qualitative characteristics of relevance and faithful representation. It is also inappropriate for preparers of *general purpose water accounting reports* to leave *water accounting* policies unchanged when more relevant and faithfully representative alternatives exist.

27. Because report users are likely to compare a *water report entity's* economic, environmental, social or *water* resource position and performance in relation to *water* over time, it is important that *general purpose water accounting reports* include corresponding information for the preceding, corresponding or otherwise relevant periods.

Verifiability

28. The usefulness of information provided in *general purpose water accounting reports* is enhanced if it is verifiable. Verifiability helps assure report users that the information contained in *general purpose water accounting reports* faithfully represents what it purports to represent. Verifiability implies that different knowledgeable and independent observers could arrive at the general consensus that the information is represented without material error or bias, or that appropriate recognition or measurement principles have been applied without material error or bias.

29. Verification may be direct or indirect. Direct verification involves an amount or other representation itself being verified. For example, the existence of *water* rights or *water* obligations appearing in a statement of *general purpose water accounting reports* may be verified by accessing a register of *water* rights or *water* obligations. Indirect verification involves checking the inputs and outputs associated with recognising or measuring information using the same convention or methodology. For example, recalculating the *water report entity's* estimate of *groundwater* indirectly verifies an amount reported in the *water report entity's general purpose water accounting reports*.

Timeliness

30. The usefulness of information in *general purpose water accounting reports* is enhanced if the information is timely. If there is undue delay in the reporting of information it may lose its relevance. *General purpose water accounting report* preparers may need to balance the merits of the provision of reliable and faithfully represented information with timely reporting.

Understandability

31. The usefulness of information in *general purpose water accounting reports* is enhanced if the information is understandable. For this purpose, report users are assumed to have a reasonable knowledge of how *water*

may be sourced, managed, shared and used. This includes having a general understanding of the economic, environmental and social impacts of the use and natural transformation of *water*. *General purpose water accounting report* users are also assumed to be willing to study the reported information with reasonable diligence.

32. Information about complex matters that should be included in the *general purpose water accounting reports* because of its relevance to report users' decision-making needs should not be excluded merely on the basis that it may be too difficult for some report users to understand without assistance.

Constraints on general purpose water reporting

33. Providing information in *general purpose water accounting reports* may be constrained by materiality and cost.

Materiality

34. Information is material if its omission from, or misstatement in, a *general purpose water accounting report* could influence the decisions of users of that *water accounting report*. Materiality depends on the impact of the nature and amount (volume, value or other attribute) of the item or error, as judged in the particular circumstances of its omission or misstatement on decisions made on the basis of the *general purpose water accounting reports*. It is not possible to specify a uniform quantitative threshold at which a particular type of *water* related information becomes material. Nevertheless, materiality must be taken into account because material omissions or misstatements will render the information incomplete, biased or not free from error.

35. In some cases, the nature of information alone is sufficient to determine its relevance. For example, environmental flows from a particular source may be small in magnitude, but may be critical for maintaining ecosystem health and therefore information about such flows is relevant to decision makers. In other cases, both the nature and amount of an item are important, and this might include, for example, the *water* held in catchment dams. If the volume of farm dams within a particular area is small, the reporting of this information about the *water report entity* may not be relevant. However, in instances where farm dams capture a large portion of runoff, disclosure of this information may be relevant.

Cost

36. The balance between benefit and cost is a pervasive constraint. The benefits derived from information should exceed the cost of providing it. The evaluation of benefits and costs is, however, substantially a judgemental process with the assessment being more qualitative than quantitative, and often incomplete.

37. The benefits of providing information in *general purpose water accounting reports* include better resource allocation decision making, and favourable effects on public relations. It may also facilitate better decisions by *water* managers if the provision of information for general reporting purposes enhances the quality of information used internally.

38. The costs of preparing *general purpose water accounting reports* include the costs of collecting, processing, verifying and disseminating the information contained therein. Report users incur additional costs of analysis and interpretation.

39. The costs do not necessarily fall explicitly on those report users who enjoy the benefits. Benefits may also be enjoyed by users other than those for whom the information is prepared; for example, the provision of further information to the community may reduce lobbying in relation to *water* pricing or distribution, and thereby also reduce the attendant financial and non-financial costs. For these reasons, it is difficult to apply a cost-benefit test in any particular case. Nevertheless, *water accounting* standard-setters in particular, as well as *general purpose water accounting report* preparers and users, should be aware of this constraint. *Water accounting* standard setters should recognise explicitly the cost-benefit trade-off in developing *water accounting* standards.

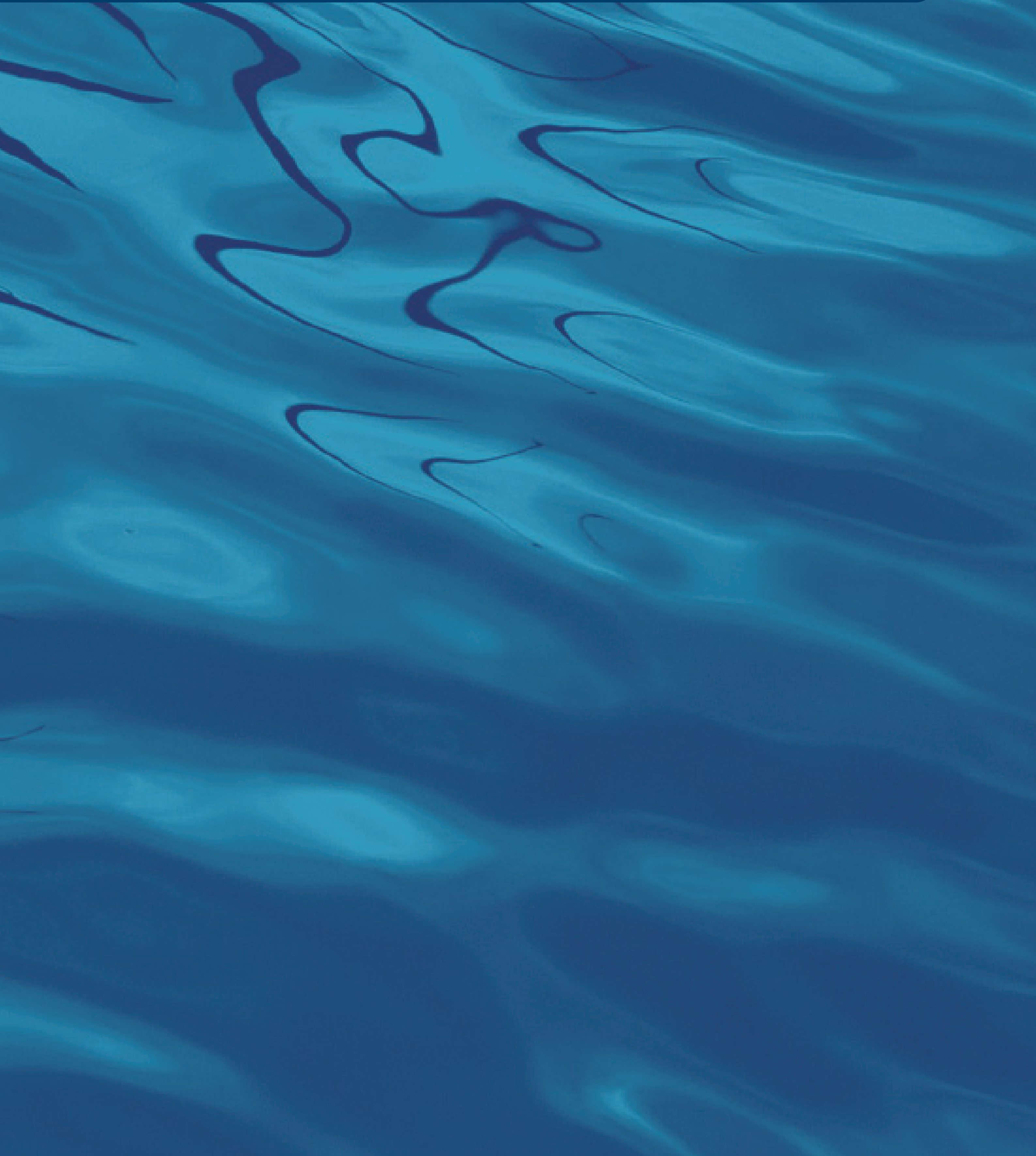
40. In assessing *accountability* in relation to the decisions made by the management or governing body of a *water report entity*, the impact of cost on the information reported should be acknowledged. For example, with stream gauging the *water* resource manager may be faced with the following trade-off:

    a) install and maintain a relatively small number of gauges to a high standard, covering a small proportion of the catchment, reasoning that flows in the balance of the catchment can be estimated by hydrographic correlation techniques; or

    b) install and maintain a larger number of gauges to a lower standard, but covering a higher proportion of the catchment.

    In such instances, the relevance and faithful representation of the related information included in *general purpose water accounting reports* must be carefully considered and communicated to report users.

SWAC 4: Elements of General Purpose Water Accounting Reports



Water accounting concepts

1. The purpose of this Statement is to define the elements of *general purpose water accounting reports*.

Elements of general purpose water accounting reports

2. The elements of *general purpose water accounting reports* are:

- ***Water assets*;**
- ***Water liabilities*;**
- ***Net water assets*;**
- **Changes in *water assets*; and**
- **Changes in *water liabilities*.**

Water assets

3. A *water asset* is *water*, or the rights or other *claims to water*, which the *water report entity* holds or transfers, and from which the *water report entity*, or stakeholders of the *water report entity*, derive future benefits.

Water liabilities

4. A *water liability* is a present obligation of the *water report entity*, the discharge of which is expected to result in a decrease in the *water report entity's water assets* or an increase in another *water liability*.

Net water assets

5. *Net water assets* are the excess of the *water assets* of the *water report entity* after deducting all of its *water liabilities*.

Change in water assets

6. Change in *water assets* are increases or decreases in the *water report entity's water assets* from one *reporting date* to the next.

Change in water liabilities

7. Change in *water liabilities* are increases or decreases in the *water report entity's water liabilities* from one *reporting date* to the next.

8. *General purpose water accounting reports* shall report *water assets*, *water liabilities*, *net water assets*, and change in *water assets* and change in *water liabilities* when this information meets the objective of *general purpose water accounting reports*.

Discussion

9. The objective of *general purpose water accounting reports* is to provide information useful to report users for making and evaluating decisions about the allocation of resources (SWAC 1). This usefulness is served by comparison to the *water report entity*'s objectives, which may be economic, environmental or social.

Water assets

Holds or transfers water

10. An essential characteristic of a *water asset* that is reported for a *water report entity* is that the *water report entity* either holds or transfers *water*. A *water asset* can be held or transferred: physically, virtually, legally or vicariously. These forms are not mutually exclusive.

11. The following are examples of *water assets* that are held through storage or retention: *water* stored in dams or major supply tanks, *water* stored or retained by organisations or individuals, legal rights and entitlements to *water*.

12. For legal rights and entitlements to *water* to meet the characteristics of a *water asset*, it must represent a present right or other present *claims to water*. This is distinct from a future right or future *claim to water*. For example, assume a *water report entity* has an instrument that entitles it to *water* from an upstream *water entity* for the next three years but the instrument restricts the *water report entity* to a third of the *water* each year. Only the *water* that is available to be accessed in the current year is a present right or present claim. The *water* that is not available until future years is not a present right or present claim but a future right or future *claim to water*.

13. Many *water assets*, for example present *claims to water*, are associated with legal rights including the right of legal control. In determining the existence of a *water asset* for reporting purposes, the right of legal control is not essential. Although the capacity of a *water report entity* to control benefits is usually the result of legal rights, an item may nonetheless satisfy the definition of a *water asset* even when there is no legal control. This is always the case for a *water entity* that is physical in nature, which cannot enter into legal transactions and therefore cannot legally control *water assets*. For the purpose of this Statement of Water Accounting Concepts, a *water entity* that is physical in nature holds those *water assets* vicariously.

Future benefits

14. 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*.

Future benefits related to a Water Report Entity

15. Future benefits derived by a *water report entity*, or the stakeholders of a *water report entity*, can be received directly or indirectly and contribute to achieving economic, environmental, social objectives.

16. Future benefits that achieve economic objectives of a *water report entity* may produce inflows of economic resources, or prevent or reduce outflows of economic resources. For example, they may be embodied in stored *water* that can be sold or delivered, in return for a service or levy fee, by the *water report entity* to its customers. Alternatively, they may be embodied in stored *water* that provides a capability to reduce cash outflows, such as when holding *water* lowers the costs of production relative to buying *water*.

17. Future benefits that achieve economic objectives of a *water report entity* may also be embodied in resources other than *water* itself. Examples include rights and other *claims to water* that can be sold by the *water report entity* or that prevents the need to install *water*-seeking or storage infrastructure such as wells, dams or irrigation channels.

18. Future benefits that achieve economic objectives of the stakeholders of a *water report entity* may include *water* in rivers, lakes, or aquifers that may be diverted to irrigate farms that derive economic benefits from sales of produce whose growth is irrigation-dependent. Alternatively, they may be embodied in rivers, lakes, or aquifers that provide a capability to reduce cash outflows of the stakeholders of the *water report entity*. This can occur, for example, when having the *water* in situ and available for use in production of goods and services eliminates the costs of storing *water* in dams, tanks, or other storage infrastructure.

19. Future benefits that achieve economic objectives of a *water report entity's* stakeholders may derive from claims or other *rights to water* that can affect the *water* holdings of another *water entity*. For example, assume a power generating company holds claims or other *rights to water* from another jurisdiction for the purpose of transferring *water* into a river system that is used for profit-making hydro power generation and which will not be able to maintain sufficient flow rates to generate electricity without the claims or rights being exercised. Those rights or *claims to water* are *water assets* of the river system since they are held vicariously by the river system and enable a stakeholder in the river system (the power generation company) to derive economic benefits. They will also be *water assets* of the power generation company, even though they relate to *water* that is not owned by the power generation company. As with other *water assets*, this situation arises because the power generation company is a stakeholder of the river system.

20. Future benefits that achieve environmental objectives of a *water report 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.

21. Similarly, a government body with an environmental protection mandate may hold rights and other *claims to water* for the express purpose of preventing others from using that *water* and preserving the amount of *water* in situ in areas of environmental degradation.

22. Future benefits that achieve environmental objectives of a *water report entity's* stakeholders can include environmental improvements, or prevention or reduction in environmental degradation. *Water assets* of a *water report entity* can include *water* within a river system where that *water* enables endangered flora and fauna to survive. They can also include claims and other *rights to water* held by an authority which prevent *water* being extracted from the source for other purposes.

23. Future benefits that achieve social objectives of a *water report entity* may produce social benefits, or prevent loss of social benefits. For example, they may be embodied in lakes on crown land that are used for recreational or fire-fighting purposes.

24. Future benefits that achieve social objectives of a *water report entity* may also be embodied in resources other than *water* itself. Examples include rights and other *claims to water* held by a local hospital that can be used to acquire *water* during severe drought in order to preserve sterilisation capacity.

Water liabilities

Present obligation

25. An essential characteristic of a *water liability* that is reported by a *water report entity* is that the *water report 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. 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 a *water report entity* decides as a matter of policy to return *water* to the environment, even when there exists no enforceable obligation to do so, the self-imposed obligation creates a *water liability*.

26. A present obligation is distinct from a future commitment. A decision by the management of a *water report entity* to acquire *water assets* in the future does not, of itself, give rise to a present obligation. An obligation normally arises only when the *water asset* is delivered or the *water report entity* enters into an irrevocable agreement to acquire the *water asset*. In the latter case, the irrevocable nature of the agreement means that the economic, environmental or social consequences of failing to honour the obligation, for example, because of the existence of a substantial penalty, leave the *water entity* with little, if any, discretion to avoid the outflow of *water* resources to another party.

27. The settlement of a present obligation that is a *water liability* may occur in a number of ways, for example, by:
    a) Delivery of *water*;
    b) Transfer of claims or other *rights to water*.

28. An obligation may also be extinguished by other means, such as the holder of claims or other rights to the *water report entity's water* waiving or forfeiting its rights, or exceptional circumstances being declared under a *water* sharing plan that provides for a *water* allocation announcement to be revoked or suspended.

Net water assets

29. Defining *net water assets* as a residual is based on the view that *net water assets* cannot be defined independently of the *water assets* and *water liabilities*.

30. Although *net water assets* is defined as a residual, this element may be sub-classified in *general purpose water accounting reports* where sub-classification will assist *general purpose water accounting reports* for making and evaluating decisions about the allocation of resources.

31. Such classifications can be relevant to the decision-making needs of the users of *general purpose water accounting reports* when they indicate legal or other restrictions on the ability of the *water report entity* to distribute or otherwise apply its *net water assets*.

Change in water assets and change in water liabilities

32. Changes in *water assets* and changes in *water liabilities* can occur as a result of deliberate actions, or as a consequence of events or transformations beyond the control of the *water report entity* or others.

33. For *water report entities* that manage *water*, changes in *water assets* and changes in *water liabilities* can be used as part of the information used to evaluate the *water report entity's* operating performance. In conjunction with information about *water assets* and *water liabilities*, information about changes in *water assets* and changes in *water liabilities* helps the *water report entity* to discharge its *accountability* relating to *water*.

34. Changes in *water assets* and changes in *water liabilities* may be presented in different ways to provide information that is relevant for decision-making. For example, often it is reasonable to distinguish between those changes that arise in the course of the ordinary activities of the *water report entity* and those that do not. This distinction can sometimes be made on the basis that the sources of changes in *water assets* and changes in *water liabilities* are relevant in evaluating the ability of the *water report entity* to manage

water effectively; for example, events such as a major cyclone in a region not normally affected by extreme weather conditions are unlikely to recur on a regular basis. When distinguishing between items in this way consideration needs to be given to the nature of the *water report entity* and its operations. Items that arise from the ordinary activities of one *water report entity* may be unusual in respect of another.

35. Distinguishing between sources of changes in *water assets* and changes in *water liabilities* (e.g., precipitation versus purchase of *water*) and combining them in different ways can affect report users' ability to make or evaluate decisions involving the allocation of resources.

SWAC 5: Recognition of the Elements of General Purpose Water Accounting Reports

Water accounting concepts

1. The purpose of this Statement is to specify the recognition criteria for the elements of *general purpose water accounting reports*.

Recognition of the elements of general purpose water accounting reports

2. Recognition is the process of recording elements of *general purpose water accounting reports* in *water accounting statements* within those *general purpose water accounting reports*.

3. An item that meets the definition of a *water asset* shall be recognised in a particular *water accounting statement* within the *general purpose water accounting reports* if:

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*;

b) the item has an attribute that can be quantified with representational faithfulness; and

c) the attribute that can be quantified with representational faithfulness is the appropriate unit of account for the particular *water accounting statement*.

4. An item that meets the definition of a *water liability* shall be recognised in a particular *water accounting statement* within the *general purpose water accounting report* if:

a) it is probable that the obligation will result in a decrease in the *water report entity's water assets* or an increase in another *water liability* when an obligation is discharged;

b) the item has an attribute that can be quantified with representational faithfulness; and

c) the attribute that can be quantified with representational faithfulness is the appropriate unit of account for the particular *water accounting statement*.

5. An item that meets the definition of *net water assets* shall be recognised in a particular statement within the *general purpose water accounting report* if:

a) the *water assets* and *water liabilities* giving rise to the *net water assets* are recognised in the *general purpose water accounting report*;

b) the item has an attribute that can be quantified with representational faithfulness; and

c) the attribute that can be quantified with representational faithfulness is the appropriate unit of account for the particular *water accounting statement*.

6. An item that meets the definition of a change in a *water asset* or a change in a *water liability* shall be recognised in a particular *water accounting statement* within the *general purpose water accounting report* if:

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 *general purpose water accounting reports*;

c) the change in the *water asset* or *water liability* has an attribute that can be quantified with representational faithfulness; and

d) the attribute that can be quantified with representational faithfulness is the appropriate unit of account for the particular *water accounting statement*.

Discussion

The probability of future benefit or present obligation

7. For the purpose of this Statement of Water Accounting Concepts, the notion of probability is used in the recognition criteria to refer to the degree of uncertainty that:

   a) in the case of *water assets*, the future benefits associated with the item will be derived by the *water report entity*, or stakeholders of the *water report entity*;

   b) in the case of *water liabilities*, the item will result in a decrease in the *water report entity's water assets* or an increase in another *water liability* when an obligation is discharged; and

   c) in the case of a change in a *water asset* or a change in a *water liability*, there has been a change in the underlying *water asset* or *water liability*.

8. If an outcome or occurrence is probable, it is more likely than not likely.

9. The notion of probability is in keeping with the uncertainty that characterises the environment in which *water report entities* operate. Assessments of the degree of uncertainty attaching to future benefits and present obligations are made on the basis of the evidence available when the *general purpose water accounting reports* are prepared. For example, while *water* stored in a dam for irrigation purposes may normally meet the definition of a *water asset*, if that *water* becomes so saline or so contaminated that it is unfit for irrigation or alternative uses, it may be reasonable to assume that the *water* is unlikely to provide future benefits to either the *water report entity* or stakeholders of the *water report entity*. In such cases, recognition of the *water* as a *water asset* is not appropriate.

10. In the case of a *water liability*, some claims or other rights against the *water* held by a *water report entity* may be unlikely to result in either a decrease in the *water report entity's water asset*s or an increase in another *water liability*. This could arise, for example, when a dam breaks and the *water report entity* managing the dam is unable to deliver *water* within the period for which the claims or other rights against the *water* are current, and the claim or right provides no recourse to *water* beyond that period. Another example arises where a customer has claims against the *water* held by a *water report entity* but the *water report entity* is unlikely to supply *water* to that customer because the customer has failed to pay fees for *water* access and is unlikely to do so. In such instances, if it is more unlikely than likely that there will be a decrease in the *water report entity's water assets* or an increase in another *water liability* when the obligation is discharged, a *water liability* should not be recognised.

Faithful representation

11. A criterion for the recognition of an element of *general purpose water accounting reports* is that it possesses an attribute that can be quantified with faithful representation. In many cases, the attribute must be estimated. The use of reasonable estimates is an essential part of the preparation of *general purpose water accounting reports* and does not undermine their faithful representation. When, however, a reasonable estimate cannot be made, the item should not be recognised in a particular statement.

12. Elements of *general purpose water accounting reports* that cannot be quantified directly may be estimated using various modelling techniques.

13. The representational faithfulness with which an element can be quantified is influenced by several factors, regardless of the quantification techniques used. For example, elements that can be quantified directly may be subject to measurement error due to:

    a) the available technology and equipment used for quantification;

    b) limitations on the access to the *water* source for the purpose of data collection; or

c) the need for aggregation or disaggregation of data to obtain the information on the temporal or spatial scale required for reporting.

14. Similarly, in the case of elements that are quantified indirectly, models developed and used to quantify the elements may be poorly specified, thereby reducing the representational faithfulness of the quantification.

15. Factors such as those outlined in paragraphs 13 and 14 do not, of themselves, undermine the representational faithfulness of the information contained in *general purpose water accounting reports*. Assessments of the representational faithfulness of elements disclosed in the *water accounting reports* are made on the basis of the evidence available when the *general purpose water accounting reports* are prepared.

16. Consistent with SWAC 3, information has the quality of representational faithfulness when it is free from material error and bias and can be depended upon by report users to represent all phenomena which it either purports to represent or could reasonably be expected to represent.

17. *General purpose water accounting reports* should faithfully represent the transactions, transformations and events that result in *water assets*, *water liabilities*, changes in *water assets* and changes in *water liabilities* that relate to the *water report entity* at the *reporting date* and that meet the recognition criteria.

18. In assessing whether the elements recognised in *general purpose water accounting reports* faithfully represent the holdings, obligations, transactions, transformations and events intended, several factors should be considered. These factors include the temporal and spatial scales at which the information is to be recognised and the unit of account in which the relevant element should be recognised. For example, some information such as river flows recognised in the *water accounting reports* may be best presented in small time-steps such as hours, days, or weeks, whereas other information, such as *groundwater* volume in undeveloped areas, may only need to be reported each calendar or *water* year and by region.

19. Most information reported in *general purpose water accounting reports* is subject to some risk of being less than a faithful representation of the underlying substance. This is not due to bias, but rather to inherent difficulties either in identifying the transactions, transformations and other events to be quantified or in devising and applying measurement and presentation techniques that can convey messages that correspond with those transactions, transformations and events. In certain cases, the quantification of the effects of transactions, transformations and events could be so uncertain that they would not be recognised in the *general purpose water accounting reports*. For example, it may be difficult to identify and quantify with confidence the amount of loss through seepage from a natural *water* source. In other cases, however, it may be appropriate to recognise such items and to disclose the risk of error surrounding their recognition and quantification.

Substance over form

20. If information is to faithfully represent the transactions, transformations and events that it purports to represent, it is necessary that those transactions, transformations and events are accounted for and presented in accordance with their substance and reality and not merely their legal form. The substance of transactions, transformations or events is not always consistent with their legal or contrived form. For example, the claim or other *rights to water* may have no value because the *water* is unavailable and is unlikely to become available. In such circumstances, the reporting of a change in *water assets* would not faithfully represent the transaction entered into.

Neutrality

21. To be representationally faithful, the information contained in *general purpose water accounting reports* must be neutral, that is, free from bias. The recognition of elements of *general purpose water accounting reports* is not neutral if, by the selection, disclosure or presentation of information is intended to influence the decision-making or judgment to achieve a particular result or outcome.

22. The report preparers of *general purpose water accounting reports* must contend with the uncertainties that inevitably surround many transactions, transformations, events and circumstances. *Water assets*, *water liabilities*, changes in *water assets* and changes in *water liabilities* are recognised in the presence of such uncertainties by the disclosure of their nature and extent and by the exercise of prudence in the preparation of the *general purpose water accounting reports*. Prudence is the inclusion of a degree of caution in the exercise of the judgments needed in making the estimates required under conditions of uncertainty, such that *water assets* and increases in *water assets* are not overstated and *water liabilities* and increases in *water liabilities* are not understated. However, the exercise of prudence does not allow, for example, the deliberate understatement of *water assets* and changes in *water assets*, or the deliberate overstatement of *water liabilities* and changes in *water liabilities*, because the *general purpose water accounting reports* would not be neutral. In such cases, the *water accounting reports* would, therefore, not have the quality of representational faithfulness.

Where recognition criteria are not met

23. Where an item meets the definition of a *water asset*, *water liability*, or a change in *water assets* or a change in *water liabilities* but does not satisfy the recognition criteria, disclosure in the notes accompanying the *water accounting statements* shall be provided. Disclosure in the notes is appropriate if that disclosure will assist users of *general purpose water accounting reports* to make or evaluate decisions affecting the allocation of resources.

SWAC 6: Quantification of Attributes of Elements of General Purpose Water Accounting Reports

Water accounting concepts

1. The purpose of this Statement is to describe the quantification of the attributes of elements of *general purpose water accounting reports* that make the information contained therein useful for making and evaluating decisions about the allocation of resources.

Concepts of the quantification of attributes of elements of general purpose water accounting reports

2. An element that is recognised in a *general purpose water accounting report* shall be quantified within that *general purpose water accounting report*.

3. Quantification is the process of determining the amount at which an attribute of an element of a *general purpose water accounting report* is recognised in a particular statement within the report.

4. Quantification of an attribute of an element shall involve:

a) Selecting the appropriate attribute of an element;

b) Selecting the appropriate unit of account;

c) Selecting the appropriate quantification approach; and

d) Using the unit of account and quantification approach to determine the amount of the attribute of the element.

5. The quantification of an attribute of an element recognised in *general purpose water accounting reports* shall apply the combination of attribute, unit of account and quantification approach that best enables the *water accounting report* to faithfully represent information that is useful for making and evaluating resource allocation decisions.

Discussion

Attributes

6. An element of a *general purpose water accounting report* will possess an attribute that can be quantified and often it will possess more than one attribute. For example, 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.

7. The appropriateness of the attribute to be quantified shall depend on report users' information needs. For example, *water* volume may be an appropriate attribute for *water assets* of a *water report entity* supplying *water* to a township if report users are interested in *water* supply continuity. The appropriate attribute for *water assets* of a desalination plant may be *water* salinity so that report users can assess the effectiveness of the desalination process. The appropriate attribute for tradeable *water* rights (*water assets* or *water liabilities*) may be monetary value if report users are interested in assessing the financial viability of irrigation enterprises dependant on such rights attributable to the *water report entity*.

Unit of account

8. An attribute of an element may be quantified using different units of account. For example, the volume (attribute) of *water* stocks (*water assets* element) may be quantified in units such as litres, cubic metres or gallons. Salinity (attribute) of *water assets* may be expressed in units of account such as milligrams of dissolved solid per litre or microSiemens per centimetre (μS/cm) at 25ºC. The unit of account for assigning a monetary value to *water assets*, *water liabilities*, *net water assets* and changes in balances of *water assets* and *water liabilities* can be a currency or a currency adjusted for changes in purchasing power.

9. The unit of account selected shall be the unit that maximises, to the extent possible, the usefulness of the information for report users' resource allocations decisions. For example:
   a) Australian users of *general purpose water accounting reports* are likely to find metric volume measure more useful than imperial measures of *water* volume;
   b) The precision of *water* salinity quantification may be more important to irrigators who are users of the *general purpose water accounting reports* of a desalination plant relative to irrigators who are users of the *general purpose water accounting reports* of a *water report entity* that supplies *water* from non-saline sources. Thus, applying a cost benefit trade-off, the nature of the *water report entity* and its user groups may determine the use of milligrams of dissolved solid per litre or microSiemens per centimetre (μS/cm) at 25ºC.

Quantification approaches

10. An attribute of an element may often be quantified using different quantification approaches. For example, *water* reservoir volume losses due to sedimentation can be quantified using bathymetric surveys or multifrequency acoustic profiling systems. Approaches to quantifying salinity include total dissolved salts (or solids) and electrical conductivity. Approaches to quantifying the monetary value of *water* include cost, market value and net present value.

11. All elements of a particular type (*water assets*, *water liabilities*, *net water assets* or changes in *water assets* and *water liabilities*) reported in a particular statement in a *general purpose water accounting reports* should be quantified using the same attribute if those elements are to be aggregated. For example, it is not meaningful to report aggregate *water assets* if some *water assets* have volumetric quantification and others in the same *water accounting statement* are quantified using a monetary value. Further, it is not meaningful to report aggregate *water assets* or *water liabilities* quantities if the attribute unit of account differs. For example, it is not meaningful to report aggregate *water assets* quantified in volume if some *water assets* are

recognised in litres and others in cubic metres. However, aggregation of elements of *general purpose water accounting reports* may be meaningful where approaches to quantification of an attribute to be recognised differ. For example, a *water report entity* recognising its *water storages* in litres can report the aggregate *water storages* even if the approach to determining the volume of individual *water storages* varies.

SWAC 7: Disclosures in General Purpose Water Accounting Reports

Water accounting concepts

1. The purpose of this Statement is to define and explain the requirements for disclosures in *general purpose water accounting reports*.

Scope of disclosures

2. This Statement focuses on disclosures relevant to the objective of *general purpose water accounting reports* (as described in SWAC 1). This means that disclosures recommended here relate specifically to *water* resources and *water accounting* issues rather than the broad responsibilities of, or in relation to, *water report entities*. Therefore, disclosures regarding statutory responsibilities pertaining to public health, corporations law, occupational health and safety or other areas are not addressed by this Statement.

3. This Statement does not specify all of the many agreements, legislation and policy documents that impose *compliance* requirements.

4. The management of *water report entities* will have differing responsibilities, and will therefore be subject to differing *compliance* requirements, depending on their organisational mandate and geographic scope. For instance, the management of some *water report entities* will have *water* distribution responsibilities requiring *compliance* with multiple *water* sharing and cap arrangements involving cross-border agreements, while some *water report entities* will only be responsible for supply within a single region and management may only need to comply with a single agreement.

Concept of disclosures in general purpose water accounting reports

5. *General purpose water accounting reports* shall disclose information that assists report users to assess *compliance* with relevant externally-imposed requirements or with broader notions of best practice relevant to *water report entities*.

Discussion

6. The role of disclosures is primarily to enhance the confidence of *general purpose water accounting report* users through the transparent reporting of outcomes compared to requirements.

7. Depending on the nature of the *water report entity*, disclosures may be required across several distinct areas such as *water* sharing and cap agreements; *water* supply and operations; trading of *water* rights and *water* obligations; environmental stewardship; and *water* planning and strategic initiatives.

Water sharing and cap agreements

8. The regulation of *water* resources management is based primarily on jurisdictional systems of *water* sharing that establish *water* rights and *water* obligations. Rules which govern *water* sharing within any particular system will be a function of the relevant Federal government water act, State or Territory government water acts, State, Territory and regional *water* sharing and/or bulk *water* agreements, Federal and cross-border *water* agreements (such as the Murray-Darling Basin Cap) and additional specific policies or agreements such as *surface water* or *groundwater* management plans.

9. The purpose of disclosures is to enable users of *water accounting reports* to make informed assessments of whether *compliance* obligations with respect to the *water report entity* are being met. The focus of these disclosures relates to aspects such as where available *water* was distributed and used, whether *water* rights or *water* obligations and use aligned with policies and procedures, and whether all relevant agreements were adhered to.

10. Disclosures for *water* sharing are likely to include both quantitative and qualitative items. Quantitative disclosures are likely to include allocations to specific holders of *water* rights, both consumptive and non-consumptive, as well as quantities transferred under cross-border agreements (for example, Murray-Darling Basin Agreement) and divisions under bulk *water* or *water* sharing agreements. In addition, qualitative disclosures will be required against stated policies and regulations regarding *water* sharing processes, *compliance* with international treaties and *compliance* with relevant *water* resource management objectives such as 'security of supply' targets.

Water supply and operations

11. *Water* regulations may also govern the quantity and nature of *water* supply, and operational requirements. For example, minimum passing flows may be defined for a specific waterway within an Act, agreement or policy. In addition, other operational constraints may be placed upon *water report entities* in relation to such matters as *water* deliveries, *water* quality, pumping rates, discharge quantities and quality, or other operational parameters.

12. A purpose of disclosures for *water* supply and operations is to enable users of *water accounting reports* to make informed estimates as to whether the management of the *water report entity* is meeting its responsibilities in terms of actions within waterways, channels, pipes and other infrastructure, and to create transparency around *water* supply and operations. Examples of these disclosures might include comparisons of *water* received or delivered with *water* available for *water* rights or *water* obligations, and the extent to which minimum passing flow requirements were met, end of system flows were supplied and interstate or intervalley transfers were effected.

13. Disclosures regarding *compliance* with *water* quality requirements will also be required where relevant. For example, ensuring *water* delivered was of a quality sufficient to meet required levels where specified by a Drinking Water Act, Water Act or specific agreement.

Water rights, obligations and trading

14. Robust *water* rights, *water* obligations, and trading arrangements are essential for an efficient and effective *water* resource management system. Disclosures for *water* rights, *water* obligations and trading assist in giving report users confidence about how reallocation mechanisms operate, and their effect on the *water report entity*. Several regulatory authorities have jurisdiction in relation to requirements and desirable features of *water* rights, *water* obligations and trading, including the Australian Competition and Consumer Commission, the National Water Commission, State Authorities (including Auditor-Generals Departments) as well as general guidelines relating to *water* trading outlined in *water* acts.

15. Disclosures regarding *water* rights and *water* obligations, and trading of both rights and *water* obligations should give report user's confidence that there is transparency around who owns the *water* and where it is going.

16. The desirable disclosures depend on the nature of the *water report entity*:

    a) disclosures for *water* rights and *water* obligations may include: the formation and disclosure of *water* registries (according to requirements of the National Water Initiative), progress towards licensing of previously unlicensed *water* rights and *water* obligations (for example, *groundwater*, unregulated diversions and farm dams), or efforts to monitor *compliance* with provisions relating to the *water* rights or *water* obligations (for example, detecting *water* theft, illegal connections and leakage);

    b) disclosures regarding *water* trading may include: general trading information about movements between districts, and processes in place for recording and processing trading of either *water* rights or *water* obligations (for example, time from trade occurring to trade being recorded).

Environmental stewardship

17. Environmental stewardship can be required by a wide range of regulatory instruments, license conditions, agreements and treaties. Disclosures against environmental requirements will assist a wide range of stakeholders representing consumptive and non-consumptive report users to make and evaluate decisions about the allocation of resources.

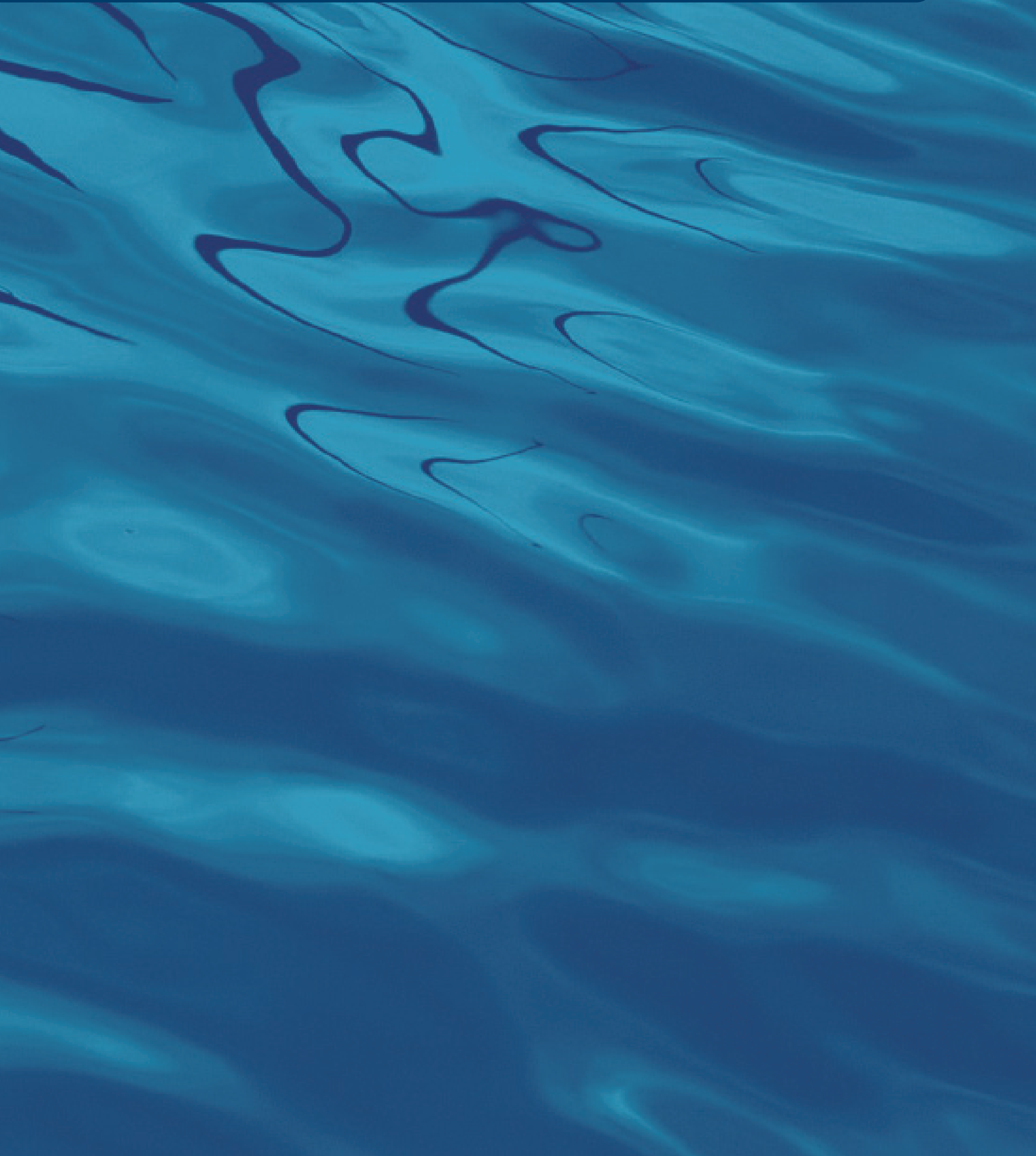
18. Specific disclosures will depend on the *water report entity*. However, examples of desirable disclosures may include delivery against environmental flow targets (both event-based and minimum flows), *compliance* with licences issued by authorities (for example, licences issued by environmental management entities) that specify operating and discharge limits, and *compliance* with international agreements and treaties and relevant jurisdiction environmental protection policies.

Water planning and strategic initiatives

19. The range and scope of *water* planning and strategic initiatives is enormous and any single *water report entity* may be subject to a variety of plans and reporting requirements. Disclosures to assist better understanding of *water* planning and management will improve user confidence in the importance and effectiveness of such initiatives.

20. Desirable disclosures relating to *water* planning and strategic initiatives may include: adherence to processes for developing *water* resource plans (meetings, approvals, etc.); progress on implementation of regional resource plans and *water* allocation plans; and improvements in the administration of *water* rights and *water* obligations (for example, against National Water Initiative objectives).

SWAC 8: Assurance of General Purpose Water Accounting Reports



Water accounting concepts

1. The purpose of this Statement is to define and describe the objectives and principles of an *assurance* engagement for *general purpose water accounting reports*.

Concepts of the assurance of general purpose water accounting reports

2. *General purpose water accounting reports* shall contain an independent attestation that the reports have been prepared in accordance with Australian Water Accounting Standards and other pronouncements governing the content of the reports consistent with the concepts in the Water Accounting Conceptual Framework.

3. The *assurance* of *general purpose water accounting reports* shall be conducted in accordance with applicable auditing and *assurance* standards and ethical standards and principles related to integrity, objectivity, professional competence and due care, confidentiality and professionalism.

Discussion

Definition and objective of an assurance engagement

4. An *assurance* engagement is an engagement in which an *assurance* practitioner expresses an opinion as to whether the *general purpose water accounting reports* are prepared in accordance with Australian Water Accounting Standards and concepts in the Water Accounting Conceptual Framework. This Statement does not cover *assurance* reports related to *special purpose water accounting reports*.

5. The purpose of the opinion expressed in an *assurance* engagement is to enhance the confidence of users of *general purpose water accounting reports* when using those reports for making and evaluating decisions about the allocation of resources.

6. The *assurance* practitioner must gather sufficient appropriate evidence to provide a reasonable basis for expressing an opinion in an *assurance* report.

7. For the purposes of this Statement, an "*assurance* practitioner" means a person or an organisation, whether in the private or public sector, involved in the provision of *assurance* services.

8. In addition to the Water Accounting Conceptual Framework and Australian Water Accounting Standards, *assurance* practitioners who perform *assurance* engagements shall be governed by:
   a) Any applicable code of conduct, issued by a professional body, which establishes relevant fundamental ethical principles for *assurance* practitioners;
   b) Those quality control requirements for firms, issued by a professional body, which establish relevant standards and provide guidance on a firm's system of quality control;
   c) Any applicable auditing or *assurance* standards issued by a professional body; and
   d) Relevant legislative requirements.

Code of conduct

9. The applicable code of conduct of a professional body provides appropriate guidance on the application of fundamental ethical principles to *assurance* engagements.

10. An applicable code of conduct of a professional body includes a conceptual approach to independence that takes into account, for each *assurance* engagement, threats to independence, accepted safeguards and the public interest. The code requires firms and members of *assurance* teams to identify and evaluate circumstances and relationships that create threats to independence and to take appropriate action to eliminate these threats or to reduce them to an acceptable level by the application of safeguards.

Fundamental principles

11. The fundamental principles that apply to all *assurance* engagements include:
    a) Integrity. An *assurance* practitioner must be straightforward and honest in professional and business relationships. Integrity also implies fair dealing and truthfulness.
    b) Objectivity. An *assurance* practitioner has an obligation not to compromise their professional or business judgment because of bias, conflict of interest or the undue influence of others.
    c) Professional competence and due care. An *assurance* practitioner must maintain professional knowledge and skills at the level required to ensure that clients or employers receive competent professional service; and act diligently in accordance with applicable technical and professional standards when providing their services.

d) Confidentiality. An *assurance* practitioner must refrain from disclosing outside the firm or employing organisation confidential information acquired as a result of professional and business relationships without proper and specific authority from the client or employer or unless there is a legal duty to disclose. Further, he/she must not use confidential information acquired as a result of professional and business relationships to their personal advantage or the advantage of third parties.

e) Professional behaviour. An *assurance* practitioner must comply with relevant laws and regulations and avoid any action or omission that may bring discredit to the *assurance* role. This includes actions or omissions which a reasonable and informed third party, having knowledge of all relevant information, would conclude has a negative effect on the good reputation of *assurance* practitioners.

Quality control

12. The following elements of a quality control system apply to all *assurance* engagements:

a) Leadership responsibilities for quality on the *assurance* engagement;

b) Ethical requirements;

c) Acceptance and continuance of client relationships and specific *assurance* engagements;

d) Assignment of *assurance* engagement teams;

e) *Assurance* engagement performance; and

f) Monitoring.