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The AWS International Water Stewardship Standard

Version 1.0

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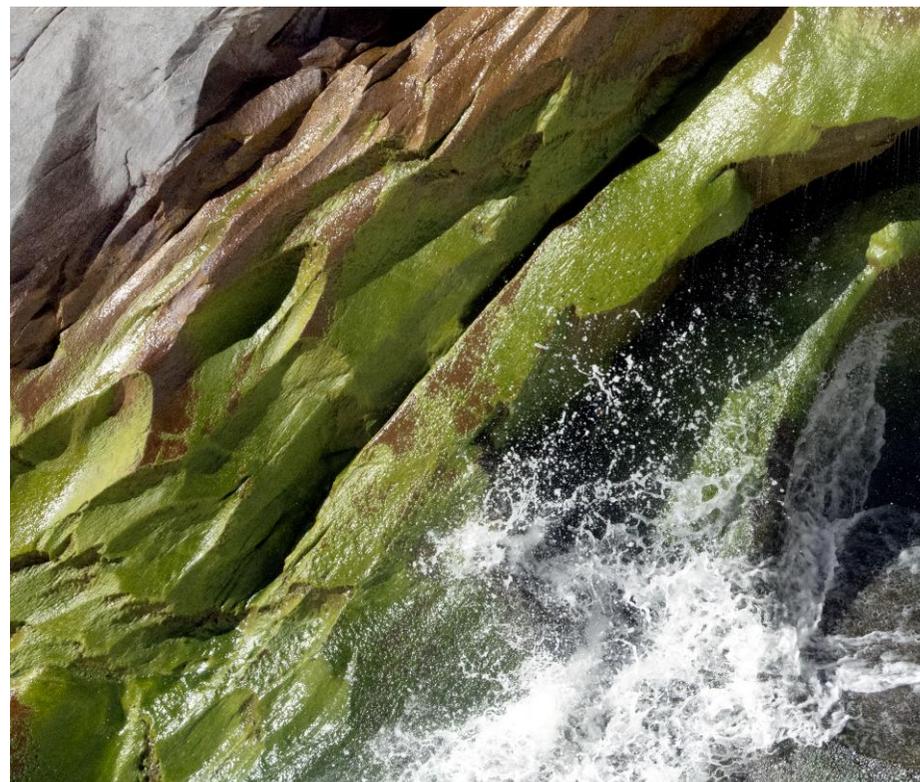
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Preamble

Growing populations and economies, changing lifestyles, and global climate change are all increasing the pressure on the planet's water resources. People and nature alike are threatened by a lack of responsible water management.

The world's water users, from agriculture, energy and industry to cities and citizens, recognize the acute need to manage more sustainably the water resources on which they depend. In parts of the world, water scarcity is threatening social, environmental and economic health. By 2030, 47 per cent of the world's population will be living in areas of high water stress.¹ Decision-

¹ United Nations (2012) World Water Development Report. Available online (April 2014):

<http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr>

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making processes around water-related policy are leaving millions without access to safe water and sanitation. At the same time, the viability of business operations and economic activity is threatened. Shareholders, governments and consumers are increasingly demanding that companies use natural resources in ways that are environmentally and socially sustainable. Water users also are realizing that improving water quality and reducing water consumption can result in significant savings and increased profits.

Our globalized world demands an international approach to water that can be applied consistently across regions and sectors, yet recognizes the local nature of water. To address the major water challenges in a sustainable way, collective approaches, through which water users work together to identify common goals for sustainable water management, must be developed.

To this end, in 2008, three organizations (The Nature Conservancy, The Pacific Institute and Water Stewardship Australia) came together to form the Alliance for Water Stewardship (AWS), whose mission is to promote water stewardship. Over time, these three organizations were joined by CDP, European Water Partnership, Water Environment Federation, Water Witness International, WWF, United Nations Global Compact's CEO Water Mandate and the United Nations Environment Programme to form a board.

In 2009, AWS was formally launched as a legal entity, and by 2010 it had initiated the development of the first International Water Stewardship Standard ("AWS Standard" or "the Standard") via the Water Roundtable (WRT) process (<http://www.allianceforwaterstewardship.org/what-we-do.html-water-roundtable>).

AWS is committed to an equitable, open and transparent approach to setting and maintaining its standard and is an ISEAL member. Accordingly, the AWS Standard system uses ISEAL's Standard Setting, Assurance and Impacts Codes.

At the centre of the development of the Standard was a 15-member group called the International Standard Development Committee (ISDC). The ISDC had representatives from three stakeholder groups (businesses and water service providers, civil society, and public-sector agencies) across eight regions (Africa, Asia Pacific, Europe, Latin America and the Caribbean, North

America, Northern Asia, South Asia, and Western and Central Asia). The ISDC was also tasked with filtering stakeholder input and deciding what to include or omit from the Standard.

The ISDC was informed by substantial input from around the world including comments to the draft posted on the website, at numerous international meetings and during the testing of the beta version. In addition to focused regional outreach in the Americas, regional water stewardship standards from Australia² and Europe,³ along with their development processes, also provided invaluable material for the ISDC.

Between March 2012 and January 2014, two drafts solicited feedback from more than 500 respondents from 30 countries, comprising several hundred pages of comments for the ISDC to review. This 1.0 version of the AWS Standard is the result of their deliberations.

Launched in April 2014, the AWS Standard will be revised after an initial two-year period and thereafter on a three-year basis to ensure that it continues to reflect stakeholder perspectives and the best global thinking and practices in water stewardship.



² <http://waterstewardship.org.au>

³ <http://www.enp.eu>

The site-level focus is intended to keep efforts manageable. It allows for impacts to be traced back to actions. However, water stewardship is centred on the recognition that water is a shared resource and requires collaborative solutions. Therefore, the Standard requires the site to work *beyond* its boundaries through engagement with stakeholders and within the catchment (Figure 1).

It is important to stress that *water stewardship is intended to support and contribute to catchment management, not replace such efforts*. For a site, answering the question, “How far does my stewardship responsibility reach?” is critical and is influenced by a number of factors, including where a site draws its water from, how large the site is (both in terms of water use and other resources) and its catchment context (e.g., the number of stakeholders, catchment size, surrounding socio-economic characteristics).



Theory of Change Underlying the Standard

The Standard is based upon a logical sequence of how water stewardship can be driven from site-level actions to result in catchment-level impacts. This so-called Theory of Change is illustrated below (Figure 2):

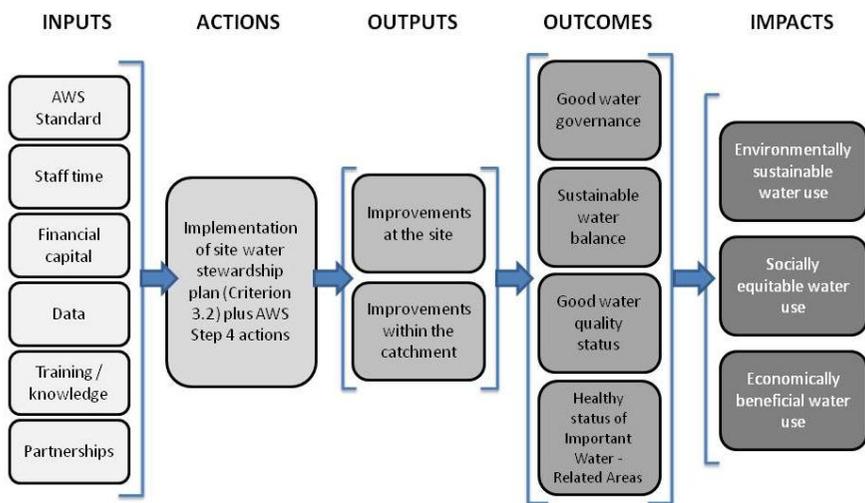


Figure 2: The AWS Standard Theory of Change

Structure of the Standard

The Standard is organized around six steps (Table 1), each of which contains a set of criteria written to contribute to the ultimate set of water stewardship outcomes. Each criterion also has corresponding indicators that help verify that the site is adequately fulfilling each criterion. The six steps are also supported by two key appendices:

- 1) **Appendix A – Glossary of Terms:** A glossary of key terms intended to clarify terminology as used by and understood in the Standard.
- 2) **Appendix B – AWS Standard Guidance:** Organized by step and criterion, **the guidance is an integral part of the Standard** and is intended to provide greater clarification and detail about how the criteria

should be interpreted and implemented and the intent of the step. The guidance is also helpful for providing recommended sources of information and examples of practices.

The Standard is intended to encourage continuous improvement and does not need to be implemented beginning at Step 1 and proceeding through Step 6. Rather, it should be implemented as suitable for the site's purposes and may indeed require adaptive, iterative and non-sequential use of the steps and criteria.



Figure 3: The AWS Standard's steps and continuous improvement

The Standard's structure allows for increasing levels of performance in water stewardship, which are recognized by Core, Gold and Platinum levels. At the Core level, all criteria are required. At the advanced levels, criteria have points attached to them, which reflect both the degree of effort required and the anticipated impact. The aggregation of points results in Gold- or Platinum-level performance. It is important to note that higher levels will also require

compliance with all core criteria plus a select number of points from the optional criteria (Figure 3). More details may be found in the AWS Certification Scheme.



Outcomes of Water Stewardship

The Standard provides a consistent global framework for sites to undertake responsible water stewardship in a manner that is transparent and stakeholder-inclusive. Specifically, the Standard is designed to achieve four water stewardship outcomes: (1) good water governance, (2) sustainable water balance, (3) good water quality status and (4) healthy status of Important Water-Related Areas. Across these outcomes, higher levels of performance (AWS Gold and AWS Platinum) show that the site is achieving best practice results and demonstrating leadership within its industry and catchment.

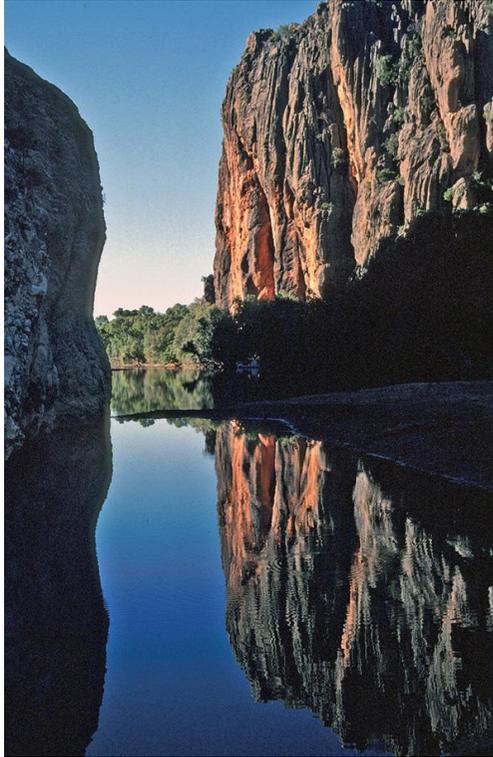
It is important to note that these four outcomes are most sustainable **when achieved collectively**. The site is expected to contribute to these outcomes via a combination of on-site management and collective action with others.

Outcomes are not intended to be auditable per se; rather, they are broad, basic and fundamental principles of water stewardship.

1) *Good water governance*

The state when the political, social, economic and administrative systems that are in place, which directly or indirectly affect the use, development and management of water resources and the delivery of water services at all levels of society, promote stakeholder participation, transparency, accountability, rule of law, and equity in a manner that is effective, efficient and enduring, and leads to the desired state of the water resource(s).

This outcome addresses both site and catchment aspects of water governance. Site water governance relates to the procedures and rules established when implementing the Standard, respecting local customary rights and complying with the applicable regulatory frameworks. The applicable regulatory frameworks may include international agreements, laws, regulations, permits, licenses, plans and policies that determine how water is governed and must be managed by the site and may include policy instruments at various levels, from local to global, as appropriate. Catchment governance relates to the formal and/or informal mechanisms in place to ensure that water is managed equitably as a resource for all users within the catchment. All these elements can be referred to collectively, in the context of the Standard, as the “good water governance requirements.” This outcome also encourages engagement and collaboration with authorities to strengthen and streamline applicable regulatory frameworks and to facilitate adequate enforcement. Lastly, governance also links to engaging others on the subjects of access to safe drinking water, sanitation and hygiene (WASH), reasonable use, and doing “no harm”. Good water governance helps sites to mitigate their water risks and plays an important role in addressing shared water challenges through collective action and inclusive stakeholder involvement.



2) Sustainable water balance

The state when the amount and timing of water use, including whether the volumes withdrawn, consumed, diverted and returned at the site and in the catchment are sustainable relative to renewable water supplies and are maintaining environmental flow regimes and renewable aquifer levels.

This outcome helps ensure that water uses are compatible with naturally occurring volumes through the mitigation of physical water risk and adverse impacts on water availability. Of particular note with sustainable water balance is that both the timing of the flows and volumes of the flows are balanced in terms of incoming and outgoing waters. Sustainability is determined by the

long-term ability of the system to meet the all of the water needs of users in the catchment, including ecosystems, bearing in mind climatic shifts.

3) Good water quality status

The state when the physical, chemical and biological properties of water, including whether water quality at the site and within the catchment(s) meets local (and, where applicable, international) regulatory requirements and is fit for the requirements of the range of biotic species present and for any human need or purpose.

This outcome helps ensure that water quality is sufficient to support all uses through the mitigation of physical water risk and reduction of adverse impacts of poor water quality in terms of the impact on the economic, environmental and social benefits derived from the use of water. Assessment of quality (i.e., ‘good’) is typically based on the extent of deviation from reference conditions. ‘Good status’ means ‘slight’ deviation, ‘moderate status’ means ‘moderate’ deviation, and so on.



4) *Healthy status of Important Water-Related Areas*

The state when the specific, environmentally, socially, culturally, or economically water-related areas of a catchment, which contribute disproportionately to human wellbeing, are in a healthy state.

This outcome addresses the specific water-related areas of a catchment that, if impaired or lost, would adversely impact the environmental, social, cultural or economic benefits derived from the catchment in a significant or disproportionate manner and whether those areas are in a state of good health. These areas, which typically provide important attributes to water quantity, quality and uses, at the site and within the catchment(s) can include the water body as well as the adjacent land features tied to the water, such as floodplains, delta/wetland areas, and aquifer recharge or discharge zones. Also included are areas of importance for religious, spiritual, social or cultural purposes, sources of drinking water and areas that provide other important ecosystem services. Achieving this outcome restores or protects these Important Water-Related Areas and addresses all aspects of water risk and the adverse impacts on areas with cultural and ecological importance. Assessment of the health of such an area (i.e., ‘healthy’) is typically based on the extent of deviation from reference conditions. ‘Good status’ means ‘slight’ deviation, ‘moderate status’ means ‘moderate’ deviation, and so on.

Points and Levels within the AWS Standard

As noted earlier, the Standard has three achievement levels: Core, Gold and Platinum. The Core AWS level is achieved by conforming with all of the core criteria and up to 40 points, while AWS Gold requires 40-79 points and AWS Platinum requires 80+ points. There are a total of 155 points available throughout the entire AWS Standard.

Level	Conformity with Core Criteria	Cumulative Advanced-Level Criteria Points
AWS Core	Required	0-39
AWS Gold	Required	40-79
AWS Platinum	Required	80+

Criteria, Indicators and Certification

The Standard is rooted in criteria and indicators. The various criteria reflect actions that a site must undertake if it is to be recognized as a responsible water steward under the AWS Standard system. The indicators, in turn, provide evidence of conformance against any given criterion. Ultimately, conformance with the criteria and indicators provides the basis for certification. For full details on the AWS Certification Scheme, please visit the AWS website: www.allianceforwaterstewardship.org.



Table 1: Summary table of the AWS Standard (v.1.0)

STEP	AWS Core Criteria	AWS Advanced-Level Criteria	Pts. (max)
COMMIT	1.1 Establish a leadership commitment on water stewardship	1.3 Further the Alliance for Water Stewardship	3 (9)
	1.2 Develop a water stewardship policy	1.4 Commit to other initiatives that advance effective water stewardship	3
		1.5 Secure a water stewardship commitment from the organization's senior-most executive or the organization's governance body	1
		1.6 Prioritize communities' rights to water	8
GATHER & UNDERSTAND	2.1 Define the physical scope	2.8 Support and undertake joint water-related data collection	4
	2.2 Identify stakeholders, their water-related challenges and the site's sphere of influence	2.9 Gather additional, detailed water-related data	3
	2.3 Gather water-related data for the catchment	2.10 Review a formal study on future water resources scenarios	3
	2.4 Gather water-related data for the site	2.11 Conduct a detailed, indirect water use evaluation	7
	2.5 Improve the site's understanding of its indirect water use	2.12 Understand groundwater status or environmental flows and the site's potential contributions	10
	2.6 Understand shared water-related challenges in the catchment	2.13 Complete a voluntary Social Impact Assessment	3
	2.7 Understand and prioritize the site's water risks and opportunities		
PLAN	3.1 Develop a system that promotes and evaluates water-related legal compliance	3.5 Gain stakeholder consensus on the site's water stewardship targets	7
	3.2 Create a site water stewardship strategy and plan	3.6 Develop a formal plan for climate change adaptation	6
	3.3 Demonstrate responsiveness and resilience to water-related risks into the site's incident response plan		
IMPLEMENT	3.4 Notify the relevant (catchment) authority of the site's water stewardship plans		
	4.1 Comply with water-related legal and regulatory requirements	4.9 Achieve best practice results on site water balance	8
	4.2 Maintain or improve site water balance	4.10 Achieve best practice results on site water quality	8
	4.3 Maintain or improve site water quality	4.11 Achieve best practice results on Important Water-Related Areas through restoration	8
	4.4 Maintain or improve the status of the site's Important Water-Related Areas	4.12 Achieve best practice results and strengthen capacity in water governance	8
	4.5 Participate positively in catchment governance	4.13 Advance regionally specific industrial water-related benchmarking	3
	4.6 Maintain or improve indirect water use within the catchment	4.14 Re-allocate saved water for social or environmental needs	6
	4.7 Provide access to safe drinking water, adequate sanitation and hygiene awareness (WASH) for workers on-site	4.15 Engage in collective action to address shared water challenges	8 (14)
	4.8 Notify the owners of shared water-related infrastructure of any concerns	4.16 Drive reduced indirect water use throughout the site's supply chain and outsourced water-related service providers	5 (7)
		4.17 Complete implementation of water-related initiatives	3
	4.18 Provide access to safe drinking water, adequate sanitation and hygiene awareness off-site	5	

Table 1 – Continued

STEP	AWS Core Criteria	AWS Advanced-Level Criteria	Pts.
EVALUATE	5.1 Evaluate the site's water stewardship performance, risks and benefits in the catchment context 5.2 Evaluate water-related emergency incidents and extreme events 5.3 Consult stakeholders on water-related performance 5.4 Update water stewardship and incident response plans	5.5 Conduct executive or governance body-level review of water stewardship efforts 5.6 Conduct a formal stakeholder evaluation	3 6
	COMMUNICATE & DISCLOSE	6.1 Disclose water-related internal governance 6.2 Disclose annual site water stewardship performance 6.3 Disclose efforts to address shared water challenges 6.4 Drive transparency in water-related compliance 6.5 Increase awareness of water issues within the site	6.6 Disclose water risks to owners (in alignment with recognized disclosure frameworks) 6.7 Implement a programme for water education 6.8 Discuss site-level water stewardship in the organization's annual report



AWS Standard (Version 1.0)

Step 1: COMMIT – Commit to being a responsible water steward

Step 1 ensures that there is sufficient leadership support to enact the rest of the criteria within the Standard. This step also relates to commitments to legal/regulatory compliance and rights-related issues, which underpin water stewardship.

AWS Core Criteria	Indicator(s)	Core/Points
<p>1.1 Establish a leadership commitment on water stewardship: Have the senior-most manager at the site, and if necessary a suitable individual within the corporate head office, sign and publicly disclose a commitment to:</p> <ul style="list-style-type: none"> • Uphold the AWS water stewardship outcomes (good water governance, sustainable water balance, good water quality status and healthy status of Important Water-Related Areas); • Engage stakeholders in an open and transparent manner; • Strive to comply with legal and regulatory requirements • Respect water-related rights, including ensuring appropriate access to safe water, sanitation and hygiene for all workers in all premises under the site’s control; • Support and coordinate with public sector agencies in the implementation of plans and policies, including working together towards meeting the human right to water and sanitation. • Continually improve and adapt the site’s water stewardship actions and plans; • Maintain the organizational capacity necessary to successfully implement the AWS Standard, including ensuring that staff have the time and resources necessary to undertake the implementation; • Support water-related national and international treaties; • Disclose material on water-related information to relevant audiences. 	<p>1.1.1 Signed and publicly disclosed statement that explicitly covers all requirements (see details in Criterion 1.1)</p>	<p>Core</p>
<p>1.2 Develop a water stewardship policy: Develop an internally agreed-upon and communicated and-publicly available water stewardship policy that references the concept of water stewardship (as informed by the AWS Standard, outcomes and criteria).</p>	<p>1.2.1 Publicly available policy that meets all requirements (see Guidance)</p>	<p>Core</p>

AWS Advanced-Level Criteria	Indicator(s)	Core/Points
<p>1.3 Further the Alliance for Water Stewardship: Commit to an AWS training programme <u>or</u> commit to AWS membership <u>or</u> get a commitment from one or more other sites to implement an AWS programme (membership, standard & certification or training).</p>	<p>1.3.1 Official registration with AWS</p>	<p>3 per programme (max. 9)</p>
<p>1.4 Commit to other initiatives that advance effective water stewardship: Commit to additional, voluntary and complementary water-related initiatives. Qualifying initiatives must:</p> <ul style="list-style-type: none"> • Be voluntary in nature; • Be commonly accepted as best practices or processes for effective water management; • Explicitly contain references to water (even if this is not their primary purpose); • Contain a time-bounded commitment for taking action to improve use of water resources; • Not be redundant with existing requirements from the AWS Standard (i.e., the site cannot get credit for commitments that would have been already required by the AWS Standard); • Intend to deliver additional social or environmental benefits, keeping with the definition of water stewardship. 	<p>1.4.1 Formal commitment to qualifying initiative(s), including a timeline for completion</p>	<p>3</p>
<p>1.5 Secure a water stewardship commitment from the organization’s senior-most executive or the organization’s governance body: The site’s commitment in 1.1 is also signed off by the senior-most executive in the organization or the overarching governance body that oversees the site’s organization.</p>	<p>1.5.1 Appropriately signed and publicly available statement that explicitly covers all requirements (see details in Criterion 1.1)</p>	<p>1</p>
<p>1.6 Commit to directly assisting with community water needs in times of stress: The site publicly commits that if the human right to water and sanitation is unmet, and if requested by the community, the site will provide direct assistance from its own allocations of 20L per person to assist communities for their water-related needs.</p>	<p>1.6.1 Signed and publicly disclosed statement that explicitly covers all requirements</p>	<p>8</p>

Step 2: GATHER & UNDERSTAND – Gather data to understand shared water challenges and water-related risks, impacts and opportunities

Step 2 ensures that the site gathers data on its water use and its catchment context and that the site employs these data to understand its shared water challenges as well as its contributions (both negative and positive) to these challenges and to water-related risks, impacts and opportunities. This information also informs the development of the site’s water stewardship plan (Step 3) and guides the actions (Step 4) necessary to deliver upon the commitments (Step 1).

AWS Core Criteria	Indicator(s)	Core/Points
<p>2.1 Define the physical scope: Identify the site’s operational boundaries, the sources the site draws its water from, the locations where the site returns its discharge to, and the catchment(s) that the site affect(s) and is reliant upon.</p>	<p>2.1.1 Documentation or map of the site’s boundaries 2.1.2 Names and location of water sources, including both water service provider (if applicable) and ultimate source water 2.1.3 Names and location of effluent discharge points, including both water service provider (if applicable) and ultimate receiving water body 2.1.4 Geographical description or map of the catchment(s)</p>	Core
<p>2.2 Identify stakeholders, their water-related challenges and the site’s sphere of influence: Identify stakeholders, document their water-related challenges and explain how the stakeholders are within the site’s sphere of influence.</p>	<p>2.2.1 List of stakeholders, descriptions of prior engagements and summaries of their water-related challenges 2.2.2 Description of the site’s sphere of influence</p>	Core
<p>2.3 Gather water-related data for the catchment: Gather credible and temporally relevant data on the site’s catchment:</p> <ul style="list-style-type: none"> • Water governance, including catchment plan(s), water-related public policies, major publicly led initiatives under way, relevant goals, and all water-related legal, regulatory requirements; • Water balance for all sources while considering future supply and demand trends; • Water quality for all sources while considering future physical, chemical and biological quality trends; • Important Water-Related Areas, including their identification and current status, while considering future trends; • Infrastructure’s current status and exposure to extreme events while considering expected future needs. 	<p>2.3.1 List of relevant aspects of catchment plan(s), significant publicly led initiatives and/or relevant water-related public policy goals for the site 2.3.2 List, and description of relevance, of all applicable water-related legal and regulatory requirements, including legally defined and customary water rights and water-use rights 2.3.3 Catchment water balance by temporally relevant time unit and commentary on future supply and demand trends 2.3.4 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site’s water source(s) by temporally relevant time unit, and commentary on any anticipated future changes</p>	Core

2.4 Gather water-related data for the site: Gather credible and temporally relevant data on the site's:

- **Governance** (including water stewardship and incident response plan);
- **Water balance** (volumetric balance of water inputs and outputs);
- **Water quality** (physical, chemical and biological quality of influent and effluent) and possible sources of water pollution;
- **Important Water-Related Areas** (identification and status);
- **Water-related costs** (including capital investment expenditures, water procurement, water treatment, outsourced water-related services, water-related R&D and water-related energy costs), **revenues** and **shared value creation** (including economic value distribution, environmental value and social value).

2.5 Improve the site's understanding of its indirect water use: Identify and continually improve the site's understanding of:

- Its primary inputs, the water use embedded in the production of those primary inputs and, where their origin can be identified, the status of the waters at the origin of the inputs;
- Water used in outsourced water-related services within the catchment.

in water quality

2.3.5 Documentation identifying Important Water-Related Areas, including a description of their current status and commentary on future trends

2.3.6 Existing, publicly available reports or plans that assess water-related infrastructure, preferably with content exploring current and projected sufficiency to meet the needs of water uses in the catchment, and exposure to extreme events

2.4.1 Copies of existing water stewardship and incident response plans

2.4.2 Site water balance (in Mm³ or m³) by temporally relevant time unit and water-use intensity metric (Mm³ or m³ per unit of production or service)

2.4.3 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site's direct and outsourced water effluent by temporally relevant time unit, and possible pollution sources (if noted)

2.4.4 Inventory of all material water-related chemicals used or stored on-site that are possible causes of water pollution

2.4.5 Documentation identifying existing, or historic, on-site Important Water-Related Areas, including a description of their status

2.4.6 List of annual water-related costs, revenues and description/quantification of social, environmental or economic value generated by the site to the catchment

2.5.1 List of primary inputs with their associated embedded annual (or better) water use and (where known) their country/region/or catchment of origin with its level of water stress

2.5.2 List of outsourced services that consume water or affect water quality and both (A) estimated annual (or better) water withdrawals listed by outsourced services

Core

Core

(Mm3 or m3) and (B) appropriate and credibly measured data to represent the physical, chemical and biological status of the outsourced annual (or better) water effluent

2.6 Understand shared water-related challenges in the catchment: Based upon the status of the catchment and stakeholder input, identify and prioritize the shared water-related challenges that affect the site and that affect the social, environmental and/or economic status of the catchment(s). In considering the challenges, the drivers of future trends and how these issues are currently being addressed by public-sector agencies must all be noted.

2.6.1 Prioritized and justified list of shared water challenges that also considers drivers and notes related to public-sector agency efforts

Core

2.7 Understand and prioritize the site’s water risks and opportunities: Based upon the status of the site, existing risk management plans and/or the issues identified in 2.6, assess and prioritize the water risks and opportunities affecting the site.

2.7.1 Prioritized list of water risks facing the site, noting severity of impact and likelihood within a given time frame

Core

2.7.2 Prioritized list of water-related opportunities for the site

2.7.3 Estimate of potential savings/value creation

AWS Advanced-Level Criteria	Indicator(s)	Core/Points
2.8 Support and undertake joint water-related data collection: Engage in data gathering with two or more other organizations in the catchment or join a public-sector-led effort to gather the information required in Criterion 2.3.	2.8.1 Evidence of water-related data that was jointly gathered	4
2.9 Gather additional, detailed water-related data: Gather additional data that goes beyond the core requirements with respect to the site or the catchment, or generate core data in highly data-deficient environments, to further refine the site’s understanding of its water stewardship context.	2.9.1 Water-related data sets that go beyond core requirements – See Guidance for details	3
2.10 Review a formal study on future water resources scenarios: Gather detailed information that explores water usability (quantity and quality) under future scenarios (including extreme events, population and urbanization changes, economic development, possible climate change impact scenarios, and anticipated infrastructure needs) within the catchment and comment on the scenarios’ impacts upon the site’s growth strategy.	2.10.1 Copy of a study that details projected future state conditions relative to current quantity and quality parameters and a comment on potential impacts upon the site’s growth strategy	3

2.11 Conduct a detailed, indirect water use evaluation: Complete an advanced evaluation of indirect water use related to the site's primary products/services (including outsourced, downstream services) that identifies the location of water use within the site's supply chain and clarifies the site's ability to influence the management of its suppliers' water use.

2.12 Understand groundwater status or environmental flows and the site's potential contributions: Gather data on either groundwater status or environmental flows and identify the site's potential contribution. In all cases, coordination with relevant government agencies is required.

2.13 Complete a voluntary Social Impact Assessment: Complete a voluntary Social Impact Assessment for the site, with a particular focus on water.

2.11.1 Detailed description of the site's water-related supply chain with indirect water use amounts (for water quantity and quality) and the site's engagement efforts to date for each

2.12.1 Conclusions about the site's potential contributions to groundwater recharge or environmental flows restoration

2.13.1 Social impact assessment report

7

10

3



Step 3: PLAN – Develop a water stewardship plan

Step 3 focuses on how a site will improve its performance and the status of its catchment in terms of the AWS water stewardship outcomes. Step 3 needs to explicitly link the information gathered in Step 2 to the performance noted in Step 4 by describing who will be doing what and when. The monitoring methods in Step 5 should also reflect the plan.

AWS Core Criteria	Indicator(s)	Core/Points
<p>3.1 Develop a system that promotes and evaluates water-related legal compliance: Develop, or refer to, a system that promotes and periodically evaluates compliance with the legal and regulatory requirements identified in Criterion 2.3.</p>	<p>3.1.1 Documented description of system, including the processes to evaluate compliance and the names of those responsible and accountable for legal compliance</p>	Core
<p>3.2 Create a site water stewardship strategy and plan: Develop an internally available water stewardship strategy and plan for the site that addresses its shared water challenges, risks and opportunities identified in Step 2 and that contains the following components (see Guidance for plan template):</p> <ul style="list-style-type: none"> • a strategy that considers the shared water challenges within the catchment, water risks for the site (noting in particular where these are connected to existing public-sector agency catchment goals) and the site’s general response (from Criteria 2.6 and 2.7) • a plan that contains: <ul style="list-style-type: none"> ○ A list of targets (based upon Criterion 2.7) to be achieved, including how these will be measured and monitored. Note: where identified as a shared water challenge, these targets must be continually improving for the four water stewardship outcomes until such time as best practice is achieved; ○ A list of annual actions that links to the list of targets; ○ A budget for the proposed actions with cost/benefit financial information (based, in part, upon financial data from 2.7); ○ An associated list indicating who will undertake the actions (i.e., who is responsible for carrying out the work) and who will ensure that the work is completed (i.e., who is accountable for achieving the target), including actions of other actors in the catchment; ○ A brief explanation that speaks to how the proposed actions will affect: (A) water-risk mitigation, (B) water stewardship outcomes and (C) shared water challenges. 	<p>3.2.1 Available water stewardship strategy</p> <p>3.2.2 Available plan that meets all component requirements and addresses site risks, opportunities and stakeholder shared water challenges</p>	Core
<p>3.3 Demonstrate responsiveness and resilience to water-related risks into the site’s incident response plan: Add to or modify the site’s incident response plan to be both responsive and resilient to the water-related risks facing the site.</p>	<p>3.3.1 A description of the site’s efforts to be responsive and resilient to water-related issues and/or risks in an appropriate plan</p>	Core

3.4 Notify the relevant (catchment) authority of the site’s water stewardship plans: Contact the appropriate catchment authority/agency (if any) and inform them of the site’s plans to contribute to the water stewardship objectives of their catchment plan as identified in Criterion 2.3.

3.4.1 Documented evidence of communicating the site’s plan to the relevant catchment authority/agency

Core

AWS Advanced-Level Criteria

3.5 Gain stakeholder consensus on the site’s water stewardship targets: Achieve a consensus amongst stakeholders around at least one of the site’s targets to address shared water challenges.

Indicator(s)

Core/Points

3.5.1 A list that indicates which targets achieved consensus along with a list of stakeholders involved

7

3.6 Develop a formal plan for climate change adaptation: In coordination with relevant public sector agencies and infrastructure management entities, develop a plan with detailed and explicit water-related adaptation strategies to mitigate risks of projected climate change impacts, including for shared water infrastructure.

3.6.1 A set of plans that speak to the site’s risk mitigation with respect to projected climate change impacts including for shared water infrastructure

6



Step 4: IMPLEMENT – Implement the site’s stewardship plan and improve impacts

Step 4 is intended to ensure that the site is executing the plan outlined in Step 3, mitigating risks and driving actual improvements in performance.

AWS Core Criteria	Indicator(s)	Core/Points
<p>4.1 Comply with water-related legal and regulatory requirements and respect water rights: Meet all applicable legal and regulatory requirements related to water balance, water management and Important Water-Related Areas as well as water-related rights. As noted in Criteria 1.1 and 3.2, where, through its water use, the site is contributing to an inability to meet the human right to safe drinking water and sanitation, the site must also continually work with relevant public sector agencies until this basic human right to water and sanitation is fulfilled.</p>	<p>4.1.1 Documentation demonstrating compliance 4.1.2 (Catchments with stakeholders who have an unmet human right to safe drinking water and sanitation) Documentation of efforts to work with relevant public sector agencies to fulfil human right to safe drinking water and sanitation.</p>	Core
<p>4.2 Maintain or improve site water balance: Meet the site’s water balance targets. As noted in Criterion 3.2., where water scarcity is a shared water challenge, the site must also continually decrease its water withdrawals until best practices are met and work with relevant public sector agencies to address the imbalance and shared water challenge. Note: if a site wishes to increase its water use in a water scarce context, the site must cause no overall increase in water scarcity in the catchment and depletion of the site’s water source(s) and encourage relevant public sector agencies to address the unlawful water use contributing to the imbalance in the catchment.</p>	<p>4.2.1 Measurement-based evidence showing that targets have been met 4.2.2 (Water scarce catchments only) Evidence of continual decrease or best practice 4.2.3 (Sites wishing to increase withdrawals in water scarce catchments only) Evidence of no net increase in water scarcity</p>	Core
<p>4.3 Maintain or improve site water quality: Meet the site’s water quality targets. As noted in Criterion 3.2., where water quality stress is a shared water challenge, the site must also continually improve its effluent for the parameters of concern until best practices are met and work with relevant public sector agencies to address the imbalance and shared water challenge. Note: if a site wishes to increase its water use in a water stressed context, the site must cause no overall increase in the degradation of water quality in the catchment and degradation of the site’s water source(s) and encourage relevant public sector agencies to address the unlawful water use contributing to the degradation in the catchment.</p>	<p>4.3.1 Measurement-based evidence showing that targets have been met 4.3.2 (Water quality-stressed catchments only) Evidence of continual improvement or best practice 4.3.3 (Sites wishing to increase effluent levels of water quality parameters of concern in water quality-stressed catchments only) Evidence of no net degradation in water quality in the catchment</p>	Core
<p>4.4 Maintain or improve the status of the site’s Important Water-Related Areas: Meet the site’s targets for Important Water-Related Areas at the site. As noted in Criterion 3.2., where Important Water-Related Area degradation is a shared water challenge, the site must also continually improve its Important Water-Related efforts until best practices are met, and the site must not knowingly cause any further degradation of such areas on site.</p>	<p>4.4.1 Documented evidence showing that targets have been met 4.4.2 (Degraded Important Water-Related Area catchments only) Evidence of continual improvement or best practice</p>	Core

4.5 Participate positively in catchment governance: Continually coordinate and cooperate with any relevant catchment management authorities' efforts. As noted in Criterion 3.2, where water governance is a shared water challenge, the site must also continually improve its efforts until best practices are met.

4.5.1 Documented evidence of the site's ongoing efforts to contribute to good catchment governance Core
4.5.2 (Weak water governance catchments only)
 Evidence of continual improvement or best practice

4.6 Maintain or improve indirect water use within the catchment: Contact the site's primary product suppliers and water-related service providers located in the catchment and request that they take actions to help contribute to the desired water stewardship outcomes.

4.6.1 List of suppliers and service providers, along with the actions they have taken as a result of the site's engagement relating to indirect water use Core

4.7 Provide access to safe drinking water, adequate sanitation and hygiene awareness (WASH) for workers on-site: Ensure appropriate access to safe water, effective sanitation and protective hygiene for all workers in all premises under the site's control.

4.7.1 List of actions taken to provide workers access to safe water, effective sanitation and protective hygiene (WASH) on-site Core

4.8 Notify the owners of shared water-related infrastructure of any concerns: Contact the owners of shared water-related infrastructure and actively highlight any concerns the site may have in light of its risks and shared water challenges.

4.8.1 List of individuals contacted and key messages relayed Core

AWS Advanced-Level Criteria	Indicator(s)	Core/Points
4.9 Achieve best practice results on site water balance: Achieve best practice results with respect to the site's water balance targets as informed by stakeholder consensus or industry-specific benchmarks.	4.9.1 Quantified improvement in water balance from site-set baseline date 4.9.2 Evidence showing that actions meet best practice expectations	8
4.10 Achieve best practice results on site water quality: Achieve best practice results with respect to the site's water quality targets as informed by stakeholder consensus or industry-specific benchmarks.	4.10.1 Quantified improvement in water balance from site-set baseline date 4.10.2 Evidence showing that actions meet best practice expectations	8
4.11 Achieve best practice results on Important Water-Related Areas through restoration: Achieve best practice results with respect to the site's Important Water-Related targets and complete restoration of non-functioning or severely degraded Important Water-Related Areas as informed by stakeholder consensus or credible expert opinion.	4.11.1 Evidence of completed restoration of non-functioning or severely degraded Important Water-Related Areas 4.11.2 Evidence showing that actions meet best practice expectations	8

<p>4.12 Achieve best practice results and strengthen capacity in water governance: Achieve best practice results with respect to the site’s water governance targets, including transparently strengthening governance capacity, as informed by stakeholder consensus and public-sector leadership recognition.</p>	<p>4.12.1 List of efforts to positively engage and strengthen water governance capacity from a site-set baseline date 8</p> <p>4.12.2 Evidence showing that actions meet best practice expectations</p>
<p>4.13 Advance regionally specific industrial water-related benchmarking: Contribute to or participate in the development of regionally specific industrial water-related benchmarking and spreading best practices.</p>	<p>4.13.1 List of efforts to contribute to regionally specific benchmarking and spread best practices 3</p>
<p>4.14 Re-allocate saved water for social or environmental needs: Ensure that any water saved by the site’s actions under 4.2 is voluntarily re-allocated for social or environmental purposes that are recognized needs in the catchment.</p>	<p>4.14.1 Total volume of water officially re-allocated for social and environmental needs (in m3 or Mm3) 6</p> <p>4.14.2 Documentation of legal contracts for the reallocation of water to social or environmental needs</p>
<p>4.15 Engage in collective action to address shared water challenges: Work with other interested entities in the catchment to advance or improve water stewardship outcomes. For the additional recognition (6 points), quantifiably improve the shared water challenge and be recognized by stakeholders as having played a material role in the improvement.</p>	<p>4.15.1 List of collective action efforts, including a description of the role played by the site 8 or 14</p> <p>4.15.2 Quantified improvement in outcome(s) or shared water challenge(s) from site-set baseline date</p> <p>4.15.3 (For extra points only) Stakeholder-based evidence recognizing that the site played a material role in the improvement</p>
<p>4.16 Drive reduced indirect water use throughout the site’s supply chain and outsourced water-related service providers: Contact the site’s primary product suppliers and water-related service providers located outside the site’s catchment and request they take actions to help contribute to the desired water stewardship outcomes in their catchments. For the additional recognition (2 points), quantify the improvements that the site’s intervention generated and be recognized by the site’s supplier as having played a material role in prompting that improvement.</p>	<p>4.16.1 List of suppliers with details on engagement efforts 5 or 7</p> <p>4.16.2 Quantified improvement by the supplier as a result of this engagement</p> <p>4.16.3 (For extra points only) Supplier-based evidence recognizing that the site played a material role in prompting the change</p>
<p>4.17 Complete implementation of water-related initiatives: Complete implementation of one or more of the initiatives committed to in 1.4.</p>	<p>4.17.1 Appropriate documentation or evidence of completion of initiative 3</p>
<p>4.18 Provide access to safe drinking water, adequate sanitation and hygiene awareness off-site: In coordination with relevant public authorities, directly assist in the provision of appropriate access to safe drinking water, adequate sanitation and hygiene awareness for individuals off-site within the catchment.</p>	<p>4.18.1 List of actions taken to provide catchment stakeholders with access to off-site access to safe drinking water, adequate sanitation and hygiene awareness. 5</p>

Step 5: EVALUATE – Evaluate the site’s performance

Step 5 is intended to review performance against the actions taken in Step 4, learn from the outcomes – both intended and unintended – and inform the next iteration of the site’s water stewardship plan. The expectation is that such an evaluation takes place at least annually, with more frequent evaluation encouraged as feasible.

AWS Core Criteria	Indicator(s)	Core/Points
<p>5.1 Evaluate the site’s water stewardship performance, risks and benefits in the catchment context: Periodically review the site’s performance in light of its actions and targets from its water stewardship plan to evaluate:</p> <ul style="list-style-type: none"> General performance in terms of the water stewardship outcomes (considering context and water risks), positive contributions to the catchment, and water-related costs and benefits to the site. 	<p>5.1.1 Post-implementation data and narrative discussion of performance and context (including water risk)</p> <p>5.1.2 Total amount of water-related costs, cost savings and value creation for the site based upon the actions outlined in 3.2 (drawn from data gathered in 2.4.6)</p> <p>5.1.3 Updated data for indicator 2.4.7 on catchment shared value creation based upon the actions outlined in 3.2</p>	Core
<p>5.2 Evaluate water-related emergency incidents and extreme events: Evaluate impacts of water-related emergency incidents (including extreme events), if any occurred, and determine effectiveness of corrective and preventive measures. Factor lessons learned into updated plan.</p>	<p>5.2.1 Documented evidence (e.g., annual review and proposed measures)</p>	Core
<p>5.3 Consult stakeholders on water-related performance: Request input from the site’s stakeholders on the site’s water stewardship performance and factor the feedback/lessons learned into the updated plan.</p>	<p>5.3.1 Commentary by the identified stakeholders</p>	Core
<p>5.4 Update water stewardship and incident response plans: Incorporate the information obtained into the next iteration of the site’s water stewardship plan. Note: updating does not apply for initial round of Standard implementation.</p>	<p>5.4.1 Modifications to water stewardship and incident response plans incorporating relevant information</p>	Core

AWS Advanced-Level Criteria	Indicator(s)	Core/Points
<p>5.5 Conduct an executive or governance body-level review of water stewardship efforts: Review the site’s water stewardship performance, impacts and risks with either the organization’s executive team (CEO/CFO or equivalent) or board (or equivalent).</p>	<p>5.5.1 Agenda and minutes of executive team or governance body meeting noting water stewardship discussion</p>	3
<p>5.6 Conduct a formal stakeholder evaluation: Undertake a formal review with the site’s stakeholders on the site’s efforts to address shared water challenges. This includes reviewing the site’s contributions to maintaining good governance, adequate flows for all needs, good water quality status and functioning Important Water-Related Areas, and soliciting suggestions for continuous improvement.</p>	<p>5.6.1 Documentation of formal stakeholder evaluation with recommendations for updated Criterion 3.5</p>	6

Step 6: COMMUNICATE & DISCLOSE – Communicate about water stewardship and disclose the site’s stewardship efforts

Step 6 is intended to encourage transparency and accountability through communication of performance relative to commitments, policies and plans. Disclosure allows others to make informed decisions on a site’s operations and tailor their involvement to suit.

AWS Core Criteria	Indicator(s)	Points/Core
6.1 Disclose water-related internal governance: Publicly disclose the general governance structure of the site’s management, including the names of those accountable for legal compliance with water-related laws and regulations.	6.1.1 Disclosed and publicly available summary of governance at the site, including those accountable for compliance with water-related laws and regulations	Core
6.2 Disclose annual site water stewardship performance: Disclose the relevant information about the site’s annual water stewardship performance, including results against the site’s targets.	6.2.1 Disclosed summary of site’s water stewardship results	Core
6.3 Disclose efforts to address shared water challenges: Publicly disclose the site’s shared water challenges and report on the site’s efforts to help address these challenges, including all efforts to engage stakeholders and coordinate and support public-sector agencies.	6.3.1 Disclosed and publicly available description of shared challenges and summary of actions taken to engage stakeholders (including public-sector agencies)	Core
6.4 Drive transparency in water-related compliance: Make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences. Note: any site-based violation that can pose an immediate material threat to human or ecosystem health from use of or exposure to site-related water must be reported immediately to relevant public agencies.	6.4.1 Available list of water-related compliance violations with corresponding corrective actions	Core
6.5 Increase awareness of water issues within the site: Strive to raise the understanding of the importance of water issues at the site through active communications.	6.5.1 Record of awareness efforts (dates and communication) and, if possible, level of awareness	Core
AWS Advanced-Level Criteria	Indicator(s)	Points/Core
6.6 Disclose water risks to owners (in alignment with recognized disclosure frameworks): Disclose the site’s material water risks to owners with additional recognition if it is done according to a recognized global disclosure framework.	6.6.1 Written evidence of site-based material water risk information conveyed to owners 6.6.2 (For extra points only) Disclosure to owners in a format that is consistent with the requirements of a recognized disclosure framework	4 or 6

6.7 Implement a programme for water education: Implement a water education programme within the catchment to raise awareness and understanding of water stewardship issues and practices.

6.8 Discuss site-level water stewardship in the organization’s annual report: Explicitly mention the site’s efforts to implement AWS in its organization’s annual report, including referencing the benefits to the site and stakeholders.

6.7.1 Description of water-related education programme 4

6.8.1 Page number of annual report containing site-based AWS reference 2



Appendix A: Glossary of Terms

Note: All sources that are not referenced have been developed by the Alliance for Water Stewardship.

Accountability: The readiness or preparedness to give an explanation or justification to relevant others (stakeholders) for one's judgments, intentions, acts and omissions when appropriately called upon to do so. It is [also] a readiness to have one's actions judged by others and, where appropriate, accept responsibility for errors, misjudgements and negligence and recognition for competence, conscientiousness, excellence and wisdom. In the context of the Standard, the implementer has to identify individuals to be accountable internally for certain actions. In all circumstances, however, the implementer remains ultimately accountable before the competent authorities.

Source: Geoff Hunt, "Accountability," <http://www.freedomtocare.org>.

Activities: The actions that are undertaken, using inputs, to deliver outputs.

Adjacent properties: Properties that directly abut, or are contiguous with, the site.

Alliance for Water Stewardship (AWS): An independently registered, global non-profit organization, founded by some of the world's leading water entities and dedicated to advancing water stewardship. Its vision is that water users and managers are responsible water stewards, who protect and enhance freshwater resources for people and nature. Its mission is to promote responsible use of fresh water that is socially and economically beneficial as well as environmentally sustainable.

Allocation: The quantity of water available to be taken under a water access license, as shown in the license's water allocation account.

Source: Australian Government National Water Commission.

Available water: Includes the network of water resources (rivers, lakes, groundwater and others) used to supply human activities (e.g., irrigation and industrial applications).

Source: European Water Partnership, Draft Standard version 4.6, 2010.

Baseline: The beginning point at which an enterprise or activity will be monitored and against which progress can be assessed or comparisons made.

Source: ISEAL Alliance (2010) Impacts Code.

Basin: See **catchment**.

Best practice: A method or technique that has consistently shown results superior to those achieved with other means and that can be used as a benchmark. In the Standard, best practices describe actions undertaken by a site that are acknowledged by a consensus of stakeholders as positively contributing to the achievement of the four water stewardship outcomes in the catchment AND recognized as a specific industry's best practice through benchmarking OR through credible and relevant public-sector agency representatives.

Source: Adapted from BusinessDictionary.com.

Biodiversity: See **biological diversity**.

Biological diversity: The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

Source: Convention on Biological Diversity, 1992.

Board organization: An organization that is invited by and formally sits upon the AWS Board of Directors.

Capacity: The ability to perform functions, solve problems, and set and achieve objectives. Capacity needs exist at three inter-related levels: individual, institutional and societal. Capacity-building encompasses the site's human, scientific, technological, organizational, institutional and resource capabilities. It may also refer to support to strengthening the capacities of the competent authorities.

Source: Adapted from the Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 (United Nations publication, Sales No. E.93.I.18 and corrigenda), vol. I: Resolutions adopted by the Conference, resolution 1, annex II.

Catchment: The area of land from which all surface runoff and subsurface waters flow through a sequence of streams, rivers, aquifers and lakes into the sea or another outlet at a single river mouth, estuary or delta; and the area of water downstream affected by the site's discharge. Catchments, as defined here, include associated groundwater areas and may include portions of water bodies (such as lakes or rivers). In different parts of the world, catchments are also referred to as watersheds, basins (or sub-basins), but **note** that AWS-defined catchments differ slightly in that they include groundwater areas and affected downstream water areas as well.

Catchment governance: The water-related aspects of governance that are relevant to the site's catchment.

Certification: A voluntary procedure that assesses, monitors and gives written assurance that a business, product, process, service, supply chain or management system conforms to specific requirements.

Source: ISEAL Impacts Code 2010 (from Center for Responsible Tourism [CREST]).

Challenges: The water-related issues that are of interest or concern to a given entity, which, if addressed, will provide positive impacts or prevent negative impacts. Unlike water risks, water challenges may or may not be unique and may or may not be shared. Also see **shared water challenges**.

Competency: The combination of the knowledge, skills and attributes required to fulfil the responsibilities outlined by a job role.

Source: ISEAL Alliance, Impacts Code 2010.

Consensus: General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. Consensus need not imply unanimity. Under consensus, one or more parties may not fully agree with a decision but are able to accept it.

Source: International Organization for Standardization, ISO/IEC Guide 2: 2004.

Core (as in core criterion): The most basic of required elements of the Standard that must be complied with in order to achieve the AWS Certified level.

Criterion (pl. Criteria): A means of judging whether or not a specific water stewardship component has been fulfilled. Criteria are the conditions that need to be met in order to achieve a water stewardship component. Criteria add meaning and operability to a water stewardship component without themselves being direct measures of performance.

Source: Adapted from Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Critically Endangered species: A species facing a very high risk of extinction in the wild in the near future, as defined by IUCN.

Source: Adapted from IUCN Red List,

http://www.iucnredlist.org/static/categories_criteria_2_3.

Customary rights: Rights granted from customary (unwritten) law, which is considered to be established by consistent repetition of a given conduct by many members of the community and/or the conviction of the community that such conduct corresponds to a "legal rule".

Source: Adapted from The World Bank's Global Water Partnership Associate Program "Groundwater Legislation & Regulatory Provision: from customary rules to integrated catchment planning" 2004.

Directly affected: Includes those whose lives or livelihoods would be altered by the proposed decision or standard, financially or otherwise, as well as the affected public.

Discharge: The volume rate of abstracted water, including suspended solids (e.g., sediment), dissolved chemicals (e.g., $\text{CaCO}_3[\text{aq}]$), and/or biologic material (e.g., diatoms), that is returned back to either a water service provider or directly into the catchment's freshwater resources. Discharge is typically expressed in the unit of m^3/s (cubic meters per second). Discharge may or may not include effluent. Also see **effluent**.

Source: Adapted from a combination of Buchanan, T.J. and Somers, W.P., 1969, Discharge Measurements at Gaging Stations: US Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A8, 1p and European Water Partnership, Draft Standard version 4.6, 2010.

Disclosure: The act of making known all material water-related information of a site and its catchment to target audience(s). Disclosure is most commonly directed at investors or regulators to help inform investment and enforcement of regulations, and its format must be suitable for the given target audience(s). The effectiveness of this disclosure depends on many factors, including developing effective avenues of communication, targeting the right audiences and providing meaningful information.

Source: Adapted from Merriam-Webster and CEO Water Mandate (2010) Guide to Responsible Business Engagement with Water Policy.

Disseminate: To spread or disperse something (especially information, plans or policies) widely (primarily within one's facility, site or organization).

Source: Adapted from Oxford Dictionary.

Drainage water: Water withdrawn but not consumed and returned. It can be recovered and reused, and thus it is considered to be a secondary source of water. Like desalinated water and wastewater, it is also considered a type of non-conventional water.

Source: Adapted from FAO Aqua.STAT Glossary.

Ecological integrity: The degree to which all ecosystem components and their interactions are represented, functioning and able to renew themselves.

Source: US Forest Service, http://www.fs.fed.us/pnw/pubs/summary/gtr_385f.pdf.

Ecosystem: A community of all plants and animals and their physical environment, functioning together as an interdependent unit.

Source: Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Ecosystem services: The benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth.

Source: Millennium Ecosystem Assessment, Ecosystems and Human Well-being: Multiscale Assessments, Volume 4, 2005.

Effluent: A subset of discharge, effluent is the wastewater (treated or untreated) from a production process that is discharged. Also see **wastewater** or **discharge**.

Source: Adapted from European Water Partnership, Draft Standard version 4.6, 2010.

Emergency incidents: Incidents that are the result of negligence or occur outside the control of the implementer, which will have an impact on the site or catchment(s) and, therefore, should be planned for. Spills or extreme weather events such as floods and droughts, hazards and unforeseen events all fall into this description.

Endangered species: A species that is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by IUCN.

Source: Adapted from IUCN Red List, http://www.iucnredlist.org/static/categories_criteria_2_3.

Environmental and Social Impact Assessment

An Environmental and Social Impact Assessment (ESIA) is a voluntary assessment conducted to identify, evaluate and develop management measures for environmental and social impacts associated with the construction and operation of a project.

Source: Water Secure <http://www.watersecure.com.au/pub/resources/glossary>

Environmental flow (or e-flow): Describes the quantity, quality and timing of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems.

Source: The Brisbane Declaration (2007), http://www.eflownet.org/downloads/documents/WorldBank_EF2009.pdf

Environmental impact: Any alteration of environmental conditions or creation of a new set of environmental conditions, adverse or beneficial, caused or induced by the action or set of actions under consideration.

Source: European Water Partnership, Draft Standard version 4.6, 2010.

Evaporation: The transformation of liquid water into vapour as a result of heating.

Source: European Water Partnership, Draft Standard version 4.6, 2010.

Extreme event: An extreme weather or climate event. An extreme weather event is an event that is rare within its statistical reference distribution at a particular place. Definitions of “rare” vary, but an extreme weather event would normally be as rare as or rarer than the 10th or 90th percentile (e.g., a heavy, single rainfall event). By definition, the characteristics of what constitutes extreme weather may vary from place to place. An extreme climate event is an average of a number of weather events over a certain period of time, an average which is itself extreme (e.g., cumulatively very low rainfall over a season). Extreme events may or may not pose water risks for sites.

Source: Adapted from IPCC <http://www.ipcc.ch/ipccreports/tar/wg1/518.htm>.

Facility: The physical infrastructure that the site controls, which is located within a site.

Flow regime (environmental): The pattern of variation in water flows and levels through rivers, wetlands, lakes and groundwater within a catchment over time.

Source: Water Stewardship Standard Draft 00, Water Stewardship Initiative, June 2009.

Fossil water: A form of groundwater that infiltrated an aquifer millennia ago and has been stored underground since that time and is frequently denominated as old water and non-renewable. Fossil water is a subset of groundwater. Also see **groundwater**.

Source: Adapted from UNESCO “Non-renewable groundwater resources: A Guidebook on socially-sustainable management for water-policy makers” IHP –VI, series on groundwater, no. 10 (Eds.) Stephen Foster and Daniel P. Loucks.

Framework: The set of content areas that organize the basis of the Standard.

Future trends: A set of expected water-relevant conditions that are expected to manifest in the catchment (or specifically at the site) based on extrapolated trends, expert opinion, local or indigenous knowledge, or some other credible means. Most often trends will relate to expected changes in precipitation and temperature (climate change), invasive species, land use, population, or economic growth/contraction (and potential associated pollution).

Global Reporting Initiative (GRI): A standardized framework that sets forth the outcomes and indicators by which organizations can measure and report their economic, environmental and social performance.

Source: Global Reporting Initiative, 2011, <http://www.globalreporting.org>.

Good water quality status: The state when the physical, chemical and biological properties of water, including whether water quality at the site and within the catchment(s) meets local (and, where applicable, international) regulatory requirements and is fit for the requirements of the range of biotic species present and for any human need or purpose. Assessment of quality (i.e., “good”) is typically based on the extent of deviation from reference conditions. ‘Good status’ means ‘slight’ deviation, ‘moderate status’ means ‘moderate’ deviation, and so on.

*Source: Adapted from the European Union Water Framework Directive and Johnson, D.L., S.H. Ambrose, T.J. Bassett, M.L. Bowen, D.E. Crumme, J.S. Isaacson, D.N. Johnson, P. Lamb, M. Saul, and A.E. Winter-Nelson (1997). “Meanings of environmental terms.” *Journal of Environmental Quality*. 26: 581-589.[doi:10.2134/jeq1997.00472425002600030002x](https://doi.org/10.2134/jeq1997.00472425002600030002x)*

Good water governance: The state when the political, social, economic and administrative systems that are in place, which directly or indirectly affect the use, development and management of water resources and the delivery of water services at all levels of society, promote stakeholder participation, transparency, accountability, rule of law, and equity in a manner that is effective, efficient and enduring, and leads to the desired state of the water resource(s).

Governance: See **water governance**.

Government: The group of people with the authority to govern a country or state; a particular ministry in office.

Source: Oxford Dictionary.

Groundwater: Water that occurs below the surface of the Earth, where it occupies spaces in soils or geologic strata. Most groundwater comes from precipitation, which gradually percolates into the Earth, often via aquifers. Fossil water is a subset of groundwater. Also see **fossil water**.

Source: Adapted from Merriam-Webster.

Health: A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Source: World Health Organization.

Healthy Important Water-Related Areas: The state when the specific, environmentally, socially, culturally, or economically water-related areas of a catchment, which provide important contributions to human wellbeing, are in a healthy state.

High Conservation Value Areas (HCVAs): Water areas (including tidally influenced estuaries or brackish waters) that are critically influenced by or whose management has a critical influence on:

- globally, regionally or nationally significant large landscape-level areas where viable populations of most, if not all, naturally occurring species exist in natural patterns of distribution and abundance;
- globally, regionally or nationally significant concentrations of biodiversity values;
- rare, threatened or endangered ecosystems;
- basic ecosystem services in critical situations (e.g., water purification, erosion control, groundwater recharge);
- the basic needs of local communities;
- local communities' traditional cultural identity;
- climate change adaptation.

HCVAs are a form of Important Water-Related Areas that have specific conservation value. Also see **Important Water-Related Areas**.

Source: Adapted from High Conservation Value Network Resource Network, Common Guidance on HCV Identification http://www.hcvnetwork.org/resources/folder.2006-09-29.6584228415/2013_commonguidance5

Impact(s): The positive or negative long-term social, economic and environmental effects resulting from the implementation of a standards system, either directly or indirectly, intended or unintended. Impacts, which are the ultimate result, derive from outcomes. Impacts, which may be positive (those impacts which directly or indirectly, intended or unintended, generally benefit stakeholders) or negative (those impacts which directly or indirectly, intended or unintended, are generally harmful to stakeholders).

Source: ISEAL Alliance (adapted from OECD Glossary).

Important Water-Related Areas: The specific water-related areas of a catchment that, if impaired or lost, would adversely impact the environmental, social, cultural or economic benefits derived from the catchment in a significant or disproportionate manner. Important Water-Related Areas are deemed “important” either by local stakeholders or by key stakeholders at regional or international levels. Important Water-Related Areas include areas that are legally protected or under a conservation agreement; areas that have been identified by local or indigenous communities as having significance for cultural, spiritual, religious or recreational values; and areas that are recognized as providing important ecosystem services, such as riparian areas, vernal pools critical for breeding of important aquatic species, aquifer recharge zones, wetlands that provide purification services, etc. A High Conservation Value Area (HCVA) is one form of Important Water-Related Area.

Incident: An unexpected, and often deleterious, water-related event. Examples of incidents include water-related worker safety events, floods, droughts, chemical spills and water-related infrastructure failures.

Source: Adapted from Merriam-Webster.

Indicator: A quantitative or qualitative factor or variable that provides a simple and reliable means to measure the achievement of outcomes, to reflect the changes connected to a standards system or to help assess the performance of an organization. An indicator can be considered a “yardstick”, while a target is where one expects to progress to along that yardstick in a given period of time. Indicators convey a single, meaningful message or piece of information.

Source: ISEAL Alliance (adapted from OECD Glossary).

Indigenous peoples: An official definition of “indigenous” has not been adopted by the UN system due to the diversity of the world’s indigenous peoples. Instead, a modern and inclusive understanding of “indigenous” has been developed and includes peoples who:

- identify themselves and are recognized and accepted by their community as indigenous;
- demonstrate historical continuity with pre-colonial and/or pre-settler societies;
- have strong links to territories and surrounding natural resources;
- have distinct social, economic or political systems;

- maintain distinct languages, cultures and beliefs;
- form non-dominant groups of society;
- resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities.

In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, *adivasi* and *janajati*. All such terms fall within this modern understanding of “indigenous”.

Source: United Nations Permanent Forum on Indigenous Issues, Fifth Session, Fact Sheet 1: Indigenous Peoples and Identity.

Indirect water: Total water use (i.e., net consumption and pollution) in the production or supply of inputs used at a site. Indirect use includes water used (both directly and indirectly) to produce raw materials or parts and supplies as inputs for a manufacturing process as well as water used in the generation of energy for a process. It does not include water used in the transport, use or disposal of a product. Also see **supply chain**.

Source: Adapted from Water Stewardship Standard Draft 00, Water Stewardship Initiative, June 2009.

Infrastructure: The basic equipment and structures, both human-built and natural, that are needed for a country, region or organization to function properly. Examples of water-related infrastructure include water pipes, wetlands, reverse osmosis machinery, aquifers and dykes.

Source: Adapted from Merriam-Webster.

Input: The physical, human, financial and capital resources applied to a project and to its component activities. Inputs are intended to lead to activities.

Source: ISEAL Alliance (2010) Impacts Code.

Integrated water resource management (IWRM): a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

Source: Global Water Partnership <http://www.gwp.org/en/Press-Room/A-Water-Secure-World/>

Interested parties: Any person or group concerned with or directly affected by a standard and/or the roundtable process.

International Standard Development Committee (ISDC): Serves as the decision-making body and comprises 15 people. Members of the ISDC will agree upon and document its decision-making process.

Job role (job duties): The specific, primary duties (or tasks) that a job was established to perform that if not performed would severely impact the nature of the job. These duties typically are outlined in writing in a job role or via an annual statement that clarifies expected job duties.

Source: Adapted from University of Indiana’s performance management, 2012, http://www.indiana.edu/~ubrs/training/performance_management/determine.htm.

Local laws: Includes all legal norms given by sub-national units of government, such as state and provincial governments, departments, municipalities and local customary rights.

Source: Adapted from Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Materiality (relating to material primary inputs or information for disclosure):

That, which if missing or compromised, could influence the financial outcomes of a site. In the case of information disclosure, it is material if the information’s omission or misstatement could influence either the *financial outcomes* and therefore *decisions of investors/owners* taken on the basis of the statements OR the *stewardship outcomes* and therefore *decisions of other stakeholders*. In the case of primary inputs, it is material if the input’s loss or disruption could influence the operations of a site to the point that it affected the site’s financial outcomes.

Source: Adapted from Generally Accepted Accounting Principles.

Monitoring: A continuing function that uses systematic collection of data on specified indicators to provide indications of the extent to which outcomes are being achieved.

Source: ISEAL Alliance (adapted from OECD Glossary).

Native species: A species that occurs naturally in the region; endemic to the area.

Source: Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Natural cycles: Nutrient and mineral cycling as a result of interactions between soils, water, plants and animals in forest environments that affect the ecological productivity of a given site.

Source: Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Natural infrastructure: The sub-component of infrastructure that is the interconnected network of natural areas and other open spaces that conserves natural ecosystem values and functions, sustains the flows and quality of water, and provides a wide array of benefits to people and wildlife. Also referred to as “green infrastructure”. Also see **infrastructure**.

Source: Adapted from United States Environmental Protection Agency.

Nature: The collective phenomena of the physical world, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creations.

Source: Oxford Dictionary.

Negative impact(s): Deleterious long-term effects resulting from the implementation of a standards system, either directly or indirectly, intended or unintended. Also see **impacts**.

Nexus: A connected group of ideas: climate change, water, energy, biodiversity and food are interconnected in important ways, and actions in one sector may either help or harm the others.

Objective: A general description of a desired end result that is the function of one or more activities undertaken by the site. Objectives generally link to outputs and outcomes and are often synonymous with the notion of “goals” and always describe the desired end state. Objectives are distinguished from targets in that targets are annual and specific, while objectives may be multi-year and may sometimes be general (though it is encouraged that they are specific). An example of an objective would be: “Improve the site’s water intensity by 50 per cent by 2020 from 2010 levels.” A less desirable example (less specific) would be “Improve the site’s water intensity.” Also see **target**.

Origin(s): A term used in the Standard to reference a general geography. The origin could be a country, sub-national region such as a state or a province, or catchment.

Outcome(s): The primary aim(s) of the Standard. The Standard contains four outcomes: (1) good water governance, (2) sustainable water balance, (3) good water quality status and (4) healthy status of Important Water-Related Areas. Outcomes derive from outputs and are intended to lead to impacts.

Output: The studies, products, capital goods and services that result directly from the activities of a standards system and are sometimes used as indicators of measuring criteria. Outputs, which derive from activities, are intended to lead to outcomes and ultimately impacts.

Source: ISEAL Alliance (adapted from OECD Glossary).

Physical water risk: The costs imposed on an implementer due to a lack of water or a lack of water of adequate quality at a given time and location.

Source: Adapted from Marc Levinson et al., “Watching water: A guide to evaluating corporate risks in a thirsty world,” JPMorgan Global Equity Research, 31 March 2008.

Point source (of pollution): Primarily discharges from fixed sources, such as municipal wastewater treatment plants, associated with population centres or effluent discharges from industry.

Source: Adapted from European Water Partnership, Draft Standard version 4.6, 2010.

Primary input(s): The materially important product(s) or service(s) that a site consumes to generate the product(s) or service(s) it provides as its primary function. This can be thought of as the “main ingredients” that a site needs to run (e.g., aluminium, sugar (cane), CO₂, water and oranges, as well as an outsourced “cleaning service” for a site producing a canned orange drink with bubbles). Note: primary inputs do not include infrastructure.

Primary inputs should include any externally procured goods or services that account for over 5 per cent of the total weight of the goods generated, or 5 per cent of the costs of a site. For example, lumber, energy and water likely would be some of the primary inputs for a pulp and paper facility. Aggregate, energy and water likely would be the primary inputs for a mineral smelter. Fertilizer, seeds and water likely would be the primary inputs for a vegetable grower.

Note: In the case that there is an input that does not meet this generic threshold (e.g., it is only 3 per cent by cost) but is significant in its water use these should be included (if known). Also see **Guidance** under 2.5 for more details.

Provided water: The water provided to a site by a water service provider.

Publicly available: Obtainable by any person, without unreasonable barriers of access. Information that is published on an organization’s website is considered to be publicly available.

Source: ISEAL Alliance (2010) Impacts Code.

Receiving water body: The water body that ultimately receives a site’s discharge.

Regulatory water risk: The costs imposed on an implementer due to the applicable regulatory framework or prices, or both, to control consumption and discharge of water.

Source: Adapted from Marc Levinson et al., “Watching water: A guide to evaluating corporate risks in a thirsty world,” JPMorgan Global Equity Research, 31 March 2008.

Reputational water risk: The costs imposed on an implementer due to damage to a firm’s image, brand or reputation via public outcry.

Source: Adapted from Marc Levinson et al., “Watching water: A guide to evaluating corporate risks in a thirsty world,” JPMorgan Global Equity Research, 31 March 2008.

Resilience: The ability of a site to quickly adapt (become productive or successful again) after an incident (something bad happening) and continue operations. *Source: Adapted from Merriam-Webster.*

Responsibility: A sphere of duty or obligation assigned to a person by the nature of that person’s position, function or work, within the implementer.

Source: Adapted from Vincent E. Barry, Moral Issues in Business (Belmont, CA: Wadsworth, 1979).

Risk: The effect of uncertainty on a site’s objectives. Risk often involves both a likelihood (or probability) and a consequence (or severity of impact) and may arise due to changes in physical, regulatory or reputational circumstances. Risk is site-specific and unique. Also see **water risk**.

Source: Adapted from ISO 31000 and CDP, Glossary of Terms,

<https://www.cdproject.net/Documents/Guidance/2012/Technical/glossary-of-terms.pdf>.

Risk assessment: See **water risk assessment**.

Risk profile: See **water risk assessment**.

River basin: See **catchment**.

Sanitation: The process of keeping places (e.g., sites, communities, catchments) free from dirt, infection, disease, etc., by removing waste and pollution that is contaminating water bodies.

Source: Adapted from Merriam-Webster.

Saved water: Allocated water that is not used as intended and is set aside, not for operational use.

Scope: The area over which the implementer intends to apply the requirements of the Standard. This likely will be one or more sites and include the relevant catchment(s) but may include aspects of the implementer’s supply chain.

Source: Adapted from ISO.

Services: See **water-related services**.

Shared water challenges: The water-related issues that are of interest or concern to both the site and to other stakeholders in the catchment and which, if addressed, will provide positive impacts or prevent negative impacts. Shared water challenges are not necessarily unique and may be the same for multiple sites or stakeholders.

Site: A single location, including the building(s) and the property over which the implementer has control, that is using or managing water (i.e., withdrawing, consuming, diverting, managing, treating and/or discharging water or effluent into the environment).

If the site is broken into multiple, discontinuous areas, to be considered as one site, in addition to the above, the areas under control must be: (A) located within the same catchment, (B) under the same management, (C) homogenous (or mutually dependent) regarding their main production systems, their water management, their product/service range and their primary impacts. This means that a site (say a farm), which had two fields but straddled two catchments would not be considered a single site (as it violates “A” above). A site’s supply chain would also not be considered as part of a single site (as it violates “B” above), but would also qualify for group assurance if it met the requirements outlined in 4.2. Lastly, a company that had two operations in the same catchment, under the same management, but serving two different purposes (e.g., one was a dairy operation, the other was producing pineapples – i.e., heterogeneous production systems), would not be

considered a single site (as it violates “C” above), nor would it be eligible for group assurance. In this case it would need to independently assure two different sites.

Examples of sites would include such things as: a factory (including its property) even if it produced multiple goods, a water service provider (including its distributed infrastructure and the land upon which that infrastructure rests), a forestry operation (including the lands that it harvests from whether leased or owned), a farm (including the lands it farms whether leased or owned).

For the purposes of certification, sites may also request an exception if there are extenuating circumstances. This includes a heterogeneous group of SMEs looking for group certification. For details of handling such circumstances, please see the AWS Certification Scheme. Any exceptions will be tracked and accounted for in future definitions of a ‘site.’

SMEs (small and medium enterprises): Formal enterprises with annual turnover, in US-dollar terms, of between 10 and 1,000 times the mean per capita gross national income, at purchasing power parity, of the country in which they operate.

Source: Gibson, T. and van der Vaart, H.J. (2008) Defining SMEs: A Less Imperfect Way of Defining Small and Medium Enterprises in Developing Countries, Brookings, <http://www.brookings.edu/research/papers/2008/09/development-gibson>.

Source water (water source): The water body from which a site obtains its water supply. This could be from any single water body or a combination of water bodies. Source water includes both the ultimate water body (or bodies) and the water from treatment facilities and/or water service providers.

Species: A group of organisms that differ from all other groups of organisms and that are capable of breeding and producing offspring.

Sphere of influence: The degree to which a site and the site’s management have the capacity or power to be a compelling force on or produce effects on the actions, behaviours, opinions, etc., of others, formally or informally, and to move or impel stakeholders to some action through non-hierarchical means (e.g., expertise, sanctions, positive reinforcement, persuasion, coaching, relationship building, capacity-building, charisma).

Source: Adapted from UN Global Compact.

Standard: A document that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.

Source: ISEAL Alliance (2004) Standard-Setting Code (based on Annex 1 of the WTO TBT Agreement).

Stakeholders: Individuals, groups of individuals, organizations or other species that affect and/or could be affected by a standards system’s activities, products, services or associated performance. There are several main categories of stakeholders: (A) Those who **have an impact on you** (e.g., regulators, protest groups, news media), (B) those **upon whom you have (or are perceived to have) an impact** (e.g., nearby water users, neighbours, the natural environment), (C) those who have a **common interest** (e.g., another AWS site), and (D) those **neutral parties** with no specific link, but with whom it is beneficial to maintain a positive impression and relationship (e.g., national government).

Source: Adapted from ISEAL Alliance (2010) Impacts Code (adapted from AA 1000).

Steps: Six broad action areas defined with the AWS Standard as an iterative, adaptive management loop. Note that steps need not be followed in a sequential order.

Sub-catchment: A subset of a catchment. Sub-catchments, when aggregated, make up the full catchment. Also see **catchment**.

Supplier: A distinct entity that provides goods or services to a site. Also see **supply chain**.

Supply chain: A system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. General supply chains are organized as follows: producer, processor, manufacturer, distributor, retailer and customer. Not to be confused with indirect water use: the use of water by the supply chain (including embedded/virtual water).

Sustainable water balance: The state when the amount and timing of water use, including whether the volumes withdrawn, consumed, diverted and returned at the site and in the catchment are sustainable relative to renewable water supplies and are maintaining environmental flow regimes and renewable aquifer levels.

Targets: A specific description of a desired interim result that is the function of one or more activities undertaken by the site in the coming year. Another way to think about targets is that they often describe the site's contributions to the water stewardship outcomes. They are linked to objectives but are distinguished in that they are annual and often interim. An example of a target would be: "Improve the site's water intensity by 10 per cent in 2014 from 2013 levels."

Target audience: A specific group of people within the *broader* set of stakeholders at which a communications message is aimed. This is most relevant for the issue of disclosure.

Transparency: The decision-making process and the justification for a decision on a membership application or on certification made available to the applicant and based on clear criteria and application procedures.

Source: Adapted from ISEAL Alliance (2004) Standard-Setting Code.

Use rights: Rights for the use of water resources that can be granted by the competent authorities, in accordance with the applicable regulatory framework or defined by local customary norms or agreements. These rights may restrict the use of particular resources to specific levels of consumption, use or particular harvesting techniques of water resources. Use rights may refer to the rights to withdraw, abstract or divert water, to discharge effluent into water bodies, or otherwise to affect the flow regime of the source.

Source: Adapted from Forest Stewardship Council, FSC International Standard, FSC-STD-01-001.

Virtual water (embedded water): The fresh water "embodied" in a product, not in a real sense but in a virtual sense. It refers to the volume of water consumed or polluted for producing the product, measured over its full production chain.

Source: Water Footprint Network, Glossary.

Vulnerable groups: A population that has some specific characteristics that put it at higher risk of inadequate access to water and sanitation than others living in areas targeted by a project. Vulnerable groups include the elderly, the mentally and physically disabled, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, and, in some societies, women.

Source: Adapted from World Bank's Social Funds, Vulnerable Groups, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTSF/0,,contentMDK:20663797~menuPK:6344572~pagePK:148956~piPK:216618~theSitePK:396378,00.html>.

Vulnerable species: A species not Critically Endangered or Endangered but facing a high risk of extinction in the wild in the medium-term future, as defined by IUCN.

Source: Adapted from IUCN Red List: http://www.iucnredlist.org/static/categories_criteria_2_3.

WASH (water, sanitation and hygiene): An acronym used in the international development landscape to refer to the combined area of effort to address basic human water needs and rights related to accessible, safe water. WASH includes the provision of safe drinking water, adequate sanitation and hygiene education and is primarily sought after to combat water-related illnesses and diseases.

Wastewater: Water that is of no further immediate value to the purpose for which it was used or in the pursuit of which it was produced because of its quality, quantity or time of occurrence. However, wastewater from one user can be a potential supply to a user elsewhere. Cooling water is not considered to be wastewater.

Source: Water Stewardship Standard Draft 00, Water Stewardship Initiative, June 2009.

Water abstraction (withdrawal): Water removed from any sources, either permanently or temporarily. Mine water and drainage are included. Similar to **water withdrawal**.

Source: European Water Partnership, Draft Standard version 4.6, 2010.

Water balance: The change in water supply at a site level, or at a catchment level, determined by the difference between average intake, precipitation, evapotranspiration and water discharge (typically taken at the main drain of the site or catchment).

Source: Adapted from Berezovskaya, S., D. Yang and L. Hinzman, 2005. Long-term annual water balance analysis of the Lena River. Global Planetary Change, 48: 84-95.

Water benefit scheme: A financing mechanism for enabling additional water efficiency, supply and quality improvement projects, especially in water-stressed areas where additional finance is needed to enable change. *Source: Adapted from The Gold Standard Foundation.*

Water body: A physical accumulation of water. Typically this occurs either on the surface of the Earth or in specific stratigraphies of the ground (groundwater). Examples of water bodies include streams, rivers, lakes, oceans, wetlands, estuaries, ponds, canals, reservoirs or groundwaters.

Source: Adapted from Merriam-Webster.

Water consumption: Represents water that was used by the operation but not returned to its proximate source. It involves evaporated water; transpired water; water that is incorporated into products, crops or waste; water consumed by man or livestock; or water otherwise removed from the local resource. Water that is polluted to an extent prohibiting its use by others wishing access is termed "consumption". Water consumption = water lost + water in products, crops or waste + water otherwise removed from the system (e.g., by heavy pollution). Also referred to as consumptive water use.

Source: European Water Partnership, Draft Standard version 4.6, 2010 (from World Business Council on Sustainable Development).

Water flow regime (natural flow regime): The magnitude, frequency, duration, timing and rate of change of flowing water systems.

Source: Poff, N.L., Allan, J.D., Bain, M.B., Karr, J.R., Prestegard, K.L., Richter, B.D., Sparks, R.E., and Stromberg, J.C. (1997) The Natural Flow Regime. BioScience, Vol. 47, No. 11. (Dec., 1997), pp 769-784.

Water governance: The political, social, economic and administrative systems that are in place, and which directly or indirectly affect the use, development and management of water resources and the delivery of water service at all levels of society.

Source: Adapted from Water Governance Facility

<http://www.watergovernance.org/whatiswatergovernance>

Water loss: A conceptual term referring to water that escapes from a system due to either natural or anthropogenic causes. Also see **water consumption**.

Source: World Business Council on Sustainable Development Source: European Water Partnership, Draft Standard version 4.6, 2010.

Water quality: A term used to describe the chemical, physical and biological characteristics of water, usually with respect to its suitability for a particular purpose. Put another way, it is a measure of the condition of water relative to the requirements of one or more biotic species and or to any human need or purpose. *Source: Adapted from US Geological Survey, <http://ga.water.usgs.gov/edu/dictionary.html> and Johnson, D.L., S.H. Ambrose, T.J. Bassett, M.L. Bowen, D.E. Crumme, J.S. Isaacson, D.N. Johnson, P. Lamb, M. Saul, and A.E. Winter-Nelson (1997). "Meanings of environmental terms." Journal of Environmental Quality. 26: 581-589. doi:10.2134/jeq1997.00472425002600030002x*

Water recycling: The act of processing used water/wastewater through another cycle before discharge to final treatment and/or discharge to the environment. In general, there are three types of water recycling/reuse:

- wastewater recycled back in the same process or higher use of recycled water in the process cycle;
- wastewater recycled/reused in a different process, but within the same site;
- wastewater reused at another of the reporting organization's facilities.

Also referred to as water reuse.

Source: Global Reporting Initiative (version 3.0).

Water-related: All issues that relate to water such as activities that involve water, processes that require water, actions or undertakings that may affect water quantities or qualities, freshwater species or species, etc. The term is typically used throughout the Standard to restrict the scope of effort to water (as opposed to a broader range of all issues).

Water-related diseases: These include:

- those due to micro-organisms and chemicals in water people drink;
- diseases like schistosomiasis, which have part of their life cycle in water;
- diseases like malaria with water-related vectors;
- drowning and some injuries;
- others such as legionellosis carried by aerosols containing certain micro-organisms.

Source: World Health Organization.

Water-related service: A service employed by the site, which withdraws, consumes, discharges or affects the water quality of waters in, or for, the site.

Water risk: The effect of water-related uncertainty on a site's objectives.

Note: Water risk in the Standard considers the severity and probability of physical, regulatory and reputational water-related risks. Water risk is site-specific and unique.

It is important to note that water risk is felt differently by every sector of society and the organizations within them and thus is defined and interpreted differently (even when they experience the same degree of water scarcity or water stress). That notwithstanding, many water-related conditions, such as water scarcity, pollution, poor governance, inadequate infrastructure and extreme weather events create risk for many different sectors and organizations simultaneously.

“Water risk for businesses” typically refers to the ways in which water-related issues potentially undermine business viability. It is commonly categorized into three inter-related types:

- Physical – Having too little water, too much water, water that is unfit for use or inaccessible water;
- Regulatory – Changing, ineffective or poorly implemented public water policy and/or regulations;

- Reputational – Stakeholder perceptions that a company does not conduct business in a sustainable or responsible fashion with respect to water.

Also see **risk**.

Sources: Risk - Adapted from ISO 31000. Water risk for business - Adapted from Marc Levinson et al., “Watching water: A guide to evaluating corporate risks in a thirsty world,” JPMorgan Global Equity Research, 31 March 2008.

Water risk assessment: A formal or informal evaluation that considers the water risks that a site faces, and that its suppliers and service providers potentially face, through its reliance on water in the production of its goods and services.

Water Roundtable: The AWS-led, multi-year, multi-stakeholder, ISEAL-compliant process of developing the AWS Standard (version 1.0).

Water scarcity: The volumetric abundance, or lack thereof, of water supply. Water scarcity is typically calculated as a ratio of human water consumption to available water supply in a given area. Water scarcity is a physical, objective reality that can be measured consistently across regions and over time. Water scarcity reflects the physical abundance of fresh water, rather than its availability for specific needs. For instance, a region may have abundant water supplies (and thus not be considered water scarce), but have such severe pollution that those supplies are unfit for human or ecological uses.

Source: UN Global Compact, CEO Water Mandate “Driving Harmonization of Water Stress, Scarcity, and Risk Terminology”.

Water source: See **source water**.

Water stress: The ability, or lack thereof, to meet human and ecological demand for water. Compared to scarcity, “water stress” is a more inclusive and broader concept. It considers several physical aspects related to water resources, including water scarcity, but also water quality, environmental flows and the accessibility of water (i.e., whether people are able to make use of physically available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things. Both water consumption and water withdrawals provide useful information that offers insight into relative water stress. There are a variety of physical pressures related to water, such as flooding and aquatic habitat degradation, that are not included in the notion of water stress.

Water stress has subjective elements and is assessed differently depending on societal values. For example, societies may have different thresholds for what constitutes sufficiently clean drinking water or the appropriate level of environmental flows to be afforded to freshwater ecosystems, and thus assess stress differently.

Source: UN Global Compact, CEO Water Mandate "Driving Harmonization of Water Stress, Scarcity, and Risk Terminology".

Water stewardship: The use of fresh water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions. Good water stewards understand their own water use, catchment context and shared risk in terms of water governance, water balance, water quality and Important Water-Related Areas, then engage in meaningful individual and collective actions that benefit people and nature.

- Socially equitable water use recognizes and implements the human right to water and sanitation and helps ensure human well-being and equity.
- Environmentally sustainable water use maintains or improves biodiversity and ecological and hydrological processes at the catchment level.
- Economically beneficial water use contributes to long-term efficiency and development and poverty alleviation for water users, local communities and society at large.
- Water stewardship is intended to support and contribute to integrated water resource management by all actors.

Water stewardship plan: A site-specific written set of intended actions related to water stewardship, including inputs, outputs and expected outcomes/impacts.

Water steward(s): The individual(s) responsible for the operational management of the water resource and of the enterprise, as well as the management system, structure, planning and field operations in a manner consistent with the definition of water stewardship. Water stewards may be implementers and/or promoters of the AWS Standard.

Water use (used water): The total amount of water withdrawn or diverted by an operation to produce products or provide a service. Water use includes the sum of total water consumption, withdrawals and water pollution, regardless of whether the water is returned to the local resource or not.

Source: Adapted from European Water Partnership, Draft Standard version 4.6, 2010.

Water withdrawal(s): Refers to the removal of any form of water from the catchment, groundwater aquifer or adjacent seawater, including surface water (both fresh and salty), groundwater (vadose zone and fossil water), snow, ice and atmospheric water (precipitation, air moisture).

Source: Adapted from Water Stewardship Standard Draft 00, Water Stewardship Initiative, June 2009.

Watershed: See **catchment**.

