



# The AWS International Water Stewardship Standard

FIRST DRAFT FOR STAKEHOLDER INPUT

Version 03.13.2012

**Draft Publication Date:** March 13, 2012

**Draft Version:** v\_03\_13\_2012

**International Standard Development Committee (ISDC):** Imane Abdel Al, Maureen Ballestero, Sanjib Bezbaroa, Peter Coockey, Carlo Galli, Ma Jun, Chaudry Riaz Khan, John Langford, Marco Mensink, Gerphas Opondo, Jiseon Matilda Park, Ed Pinero, Peter Ruffier, Lesha Witmer.







# Table of Contents

---

<b>Table of Contents</b> .....	<b>1</b>
<b>Introduction</b> .....	<b>2</b>
Preamble.....	2
Introduction to the First Draft.....	2
Development of This Document.....	3
Scope of the AWS Standard.....	4
Recognition of Other Water-Related Standards, Tools and Efforts .....	6
Certification Levels.....	6
Next Steps.....	7
<b>Overview of the AWS Standard</b> .....	<b>8</b>
The Four AWS Principles of Water Stewardship .....	8
The Structure of the AWS Standard.....	9
<b>The Draft AWS Standard (v_03_13_2012)</b> .....	<b>11</b>
Step 1: Make a Leadership Commitment .....	11
Step 2: Measure the Site’s Water Use .....	12
Step 3: Measure The Use of Water in the Area of Influence.....	15
Step 4: Measure The Current Status Of Water In The Area Of Influence .....	17
Step 6: Measure And Manage The Site’s Indirect Water Use .....	23
Step 7: Develop Plans For The Water Impacts Of Rare Incidents .....	25
Step 8: Develop And Internally Disseminate A Water Stewardship Plan Or Policy.....	27
Step 10: Improve Your Water Impacts.....	33
Step 11: Establish The Necessary Capacity To Carry Out All Of The Steps .....	37
Step 12: Disclose Your Water Stewardship Plans, Actions And Results.....	39
<b>Appendix A: Glossary of Terms</b> .....	<b>41</b>
<b>Appendix B: Regional Supplement</b> .....	<b>49</b>
<b>Appendix C: Sectoral Supplement</b> .....	<b>49</b>

© 2012 Alliance for Water Stewardship

Photo on cover © Edward Parker / WWF-Canon

Publication design by TRUTHstudio: [www.truthstudio.com](http://www.truthstudio.com)

# Introduction

## Preamble

Growing populations, changing lifestyles and global climate change are all increasing the pressure on the planet's water resources. Both people and nature are threatened alike.

The world's water users, from agriculture and industry to cities and citizens, recognize the acute need to more sustainably manage the water resources on which they depend. In parts of the world, water scarcity is threatening the social, environmental and economic health. Decision-making processes around water-related policy are leaving millions without access to their human right to clean 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 are also realizing that improving water quality and reducing water consumption can result in significant savings and increased profits.

Our globalised world demands an international approach to water that can be applied consistently across regions, sectors and complex supply chains, yet recognize the local nature of water. To address the major water challenges in a sustainable way, a collective approach through which water users work together to identify common goals 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 was to promote water stewardship: the internal (organizational) and external (watershed) actions undertaken to optimize water benefits for society, the environment and the economy. Over time, these three founding organizations were joined by seven other organizations (Carbon Disclosure Project, European Water Partnership, International Water Management Institute, United Nations Global Compact's CEO Water Mandate, Water Environment Federation, Water Witness International, and WWF) to form a Board. In 2009, the AWS was formally launched as a separate entity and by 2010 it had initiated the development of the first International Water Stewardship Standard via the Water Roundtable (WRT) process. For more details on the Water Roundtable process, please see the AWS global Water Roundtable Process Document at [www.allianceforwaterstewardship.org](http://www.allianceforwaterstewardship.org).

## Introduction to the First Draft

The AWS International Water Stewardship Standard (the Standard) is designed to be an international, ISEAL-compliant<sup>1</sup>, standard that defines a set of water stewardship steps, principles, criteria, and indicators for how water should be stewarded at a site and watershed level in a way that is environmentally,

<sup>1</sup> Compliant with the ISEAL Alliance Code of Good Practice for Setting Social and Environmental Standards. P005 - Public Version 5.01 - April, 2010  
Alliance for Water Stewardship  
[www.allianceforwaterstewardship.org](http://www.allianceforwaterstewardship.org)

socially, and economically sustainable. The Standard is intended to provide water stewards with an approach for evaluating the existing processes and performances within their sites (or facilities) and watersheds, and ensuring that responsible water stewardship actions are in place. **The Standard's overall objective is to minimize the negative impacts and maximize the positive impacts of social, environmental and economic water use.**

Figure 1 on the following page illustrates the theory of change behind the AWS Standard and demonstrates how various inputs, when combined with the Standard, can drive the impact-related objectives and ultimately the benefits to various stakeholders. This logic underpins the AWS Standard.

**It is critical to note from the beginning, that this is a first draft and is a starting point for developing the AWS Standard, NOT a completed standard. It is very much a work-in-progress and it is the draft will shift considerably as stakeholder input informs its direction over the coming months. What is outlined from here is the initial thinking and additional input to inform where the Standard goes from here is greatly welcomed.**

Figure 1: AWS Standard Theory of Change

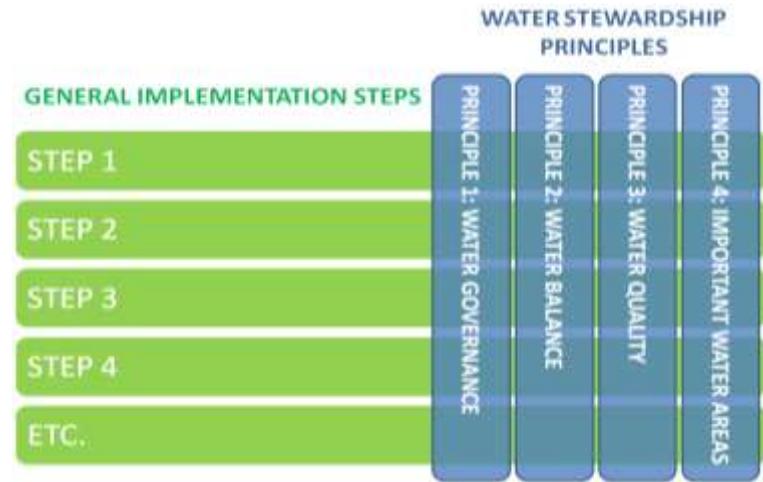


At present, the draft Standard distinguishes between implementing entities (“Implementers” - those who will apply the Standard at a given site and watershed), and promoting entities (“Promoters” - those who will encourage or require other potential implementing entities to uptake the Standard). An implementing entity has a specific geographical location and this reinforces the fact that the Standard is site-based. The thinking is that since water is local, so too should the application of the Standard. Accordingly, entities with multiple locations would not themselves be collectively certified, but rather an entity would implement the Standard (and seek certification) at the site level.

The Standard is organized around four principles (which denote the broad, overarching areas and intent of water stewardship), criteria (more detailed actions), indicators (specific measures), and targets (specific outcomes by indicator) which, when combined, are designed to mitigate the negative impacts and magnify the positive impacts of water stewardship at the site and watershed levels. These impacts are ultimately evaluated along social, environmental and economic lines.

Furthermore, the Standard is structured as a matrix with the four core principles being crossed over with various steps (Figure 2). The steps are generally designed to reflect a plan-do-check-act cycle, thus allowing for integration into existing site-level management systems (e.g., ISO 14001).

Figure 2: Structure of the draft AWS Standard



The Standard recognizes three levels (or tiers) of water stewardship: AWS Certified, AWS Gold Certified and AWS Platinum Certified. Currently, criteria are separated into core criteria (all of which must be met to achieve “AWS Certified” status, and bonus credits which reflect an increased range of actions, more challenging actions, and/or higher levels of performance.

The following pages provide greater detail on all of the above. The document is complemented by a glossary of key terms (Appendix A), a regional supplement (Appendix B), a sectoral supplement (Appendix C) and is supported by a separate guidance document (AWS Standard Guidance Document), which is intended to provide greater clarification and detail to the Standard.

## Development of This Document

The AWS International Water Stewardship Standard is being developed through a multi-stakeholder process called the global Water Roundtable. The Water Roundtable is open to all stakeholders and includes a 15 member group called the International Standard Development Committee (ISDC) with representatives from three stakeholder groups (businesses and water service providers, civil society and public sector agencies) across eight regions (Africa, Asia Pacific, Central and Western Asia, Europe, Latin America and the Caribbean, North America, Northern Asia, and South Asia). The ISDC is tasked with deciding what to ultimately include or omit from the Standard.

For more details on the global Water Roundtable process, please refer to the AWS Water Roundtable Process document.

**[AWS Editors note]:** Please note that this is the first draft in an 18-month process that will lead to the ultimate first full version of the Standard (targeted for mid-2013). This first draft version was developed by the ISDC in conjunction with the AWS Secretariat within the Terms of Reference (found at [www.allianceforwaterstewardship.org](http://www.allianceforwaterstewardship.org)) set out by the AWS Board in April 2011. It was published on March 13, 2012. Also note that this draft is intentionally incomplete. While the ISDC is tasked with deciding what to ultimately include or omit from the Standard, the development of the Standard is designed to be stakeholder-driven. It is important that stakeholders understand that they are a fundamental part of the development of the content. All content in this draft is open for input, however specific input has been requested in several challenging areas. Using the input provided by stakeholders, the ISDC will develop the content based upon feedback for the second draft Standard. These areas are noted in the online feedback forms, but also identified in this document in yellow boxes, as noted in the example below.

## Opportunities for Stakeholder Input

### Background

These question boxes have been inserted to specifically solicit stakeholder input on particularly challenging issues. Look for these throughout this document, and please provide feedback via email or online via the hyperlinks provided. The ISDC looks forward to receiving feedback on these issues to build the next draft of the AWS Standard.

To provide online feedback, please visit: <http://www.allianceforwaterstewardship.org/>

## Scope of the AWS Standard

### Implementers and Promoters

The scope of the first draft AWS Standard is restricted to “Implementers”. In other words, the Standard is intended to be used by a site and require internal and external actions that engage other stakeholders within their area of influence (which is linked to their watershed). “Promoters” (those who would encourage, or compel, others to implement the Standard) are not within the scope of this draft. In addition to implementation at the level of a single site, the initial thinking is that group implementation (and certification) would also be possible in the case of small and medium sized enterprises (SMEs). The logic of focusing the Standard at the site and watershed level is that water is local, and therefore it is critical that stewardship be based in this local context. Furthermore, by focusing the Standard on the site and watershed level, it keeps efforts manageable, and impacts can be tracked directly to changes within the watershed. Finally, this allows the Implementer to focus on those elements they can control or influence, with progressively expanding scope as the move up the levels of certification.

### Area of Influence

A notion central to the idea of water stewardship is working *beyond* one’s property boundaries and into the larger watershed in which one is based. While most entities can agree that water is a shared resource, and requires collaborative solutions, the question of “how far does my stewardship responsibility reach?” is critical. Recognizing that various factors influence this answer, including where a site draws its water, how large the site is (both in terms of water use and other resources), as well as its context (e.g., the number of stakeholders, the size of the watershed, etc.), the Standard uses a version of the UN Global Compact’s “sphere of influence” model<sup>2</sup> to determine an “area of influence”. This “onion-like” model suggests that issues at the center of the onion represent areas where the organization has greater influence, while issues towards the outer layers are areas in which the organization’s influence diminishes. This “area of influence” defines the scope for any given site. Defining the area of influence is undertaken within the Standard under Step 3, but additional guidance on this challenge is provided in the *AWS Standard Guidance Document*.

### Audience

The intention is that the Standard can be applied by any entity that uses water – small, medium or large. It is intended to be able to be used anywhere on the planet in all types of watersheds, and within any country. While the AWS recognizes that the Standard will likely be up-taken by certain types of companies and water service providers who have a stronger vested interest in being responsible water stewards, the intention is that the Standard does not discriminate against any entity wishing to apply the Standard.

<sup>2</sup> Baab, M. and Jungk, M. (2009) The arc of human rights priorities: a new model for managing business risk. Danish Institute for Human Rights on behalf of The Human Rights and Business Project and the UN Global Compact. Alliance for Water Stewardship [www.allianceforwaterstewardship.org](http://www.allianceforwaterstewardship.org)

### Types of Water

The Standard is intended to apply to all types of water. This includes the following: freshwater, salt water (including brackish water), ground water (including water in the vadose zone, as well as deeper, so-called fossil water), water in the atmosphere (including precipitation), and solid forms of water (snow, ice, etc.).

## Stakeholder Input : Scope of Standard

### Background

Water stewardship is a concept that can be applied to any user of any type of water – basically everyone and every living thing. In order to make the Standard manageable, the ISDC engaged in a discussion on who the “user” of the Standard would be. This discussion led to the distinction between “implementers” of the Standard (those actually implementing the Standard at the site and within a specific watershed), and “promoters” of the Standard (those who would encourage, or require, others to uptake the Standard).

Within those two groups (implementers & promoters) there are different motivations for why a given entity would want to use the Standard. Figure 3 illustrates how various factors help to drive the uptake of the Standard, and how the motivation for the site can be both bottom-up (via watershed specific issues), as well as top-down (via promoters’ self-interests). The orange dashed line shows the scope of promoters while the scope of implementers can be seen in red. Figure 3 also illustrates how sites can potentially act as both promoters and implementers of the Standard.

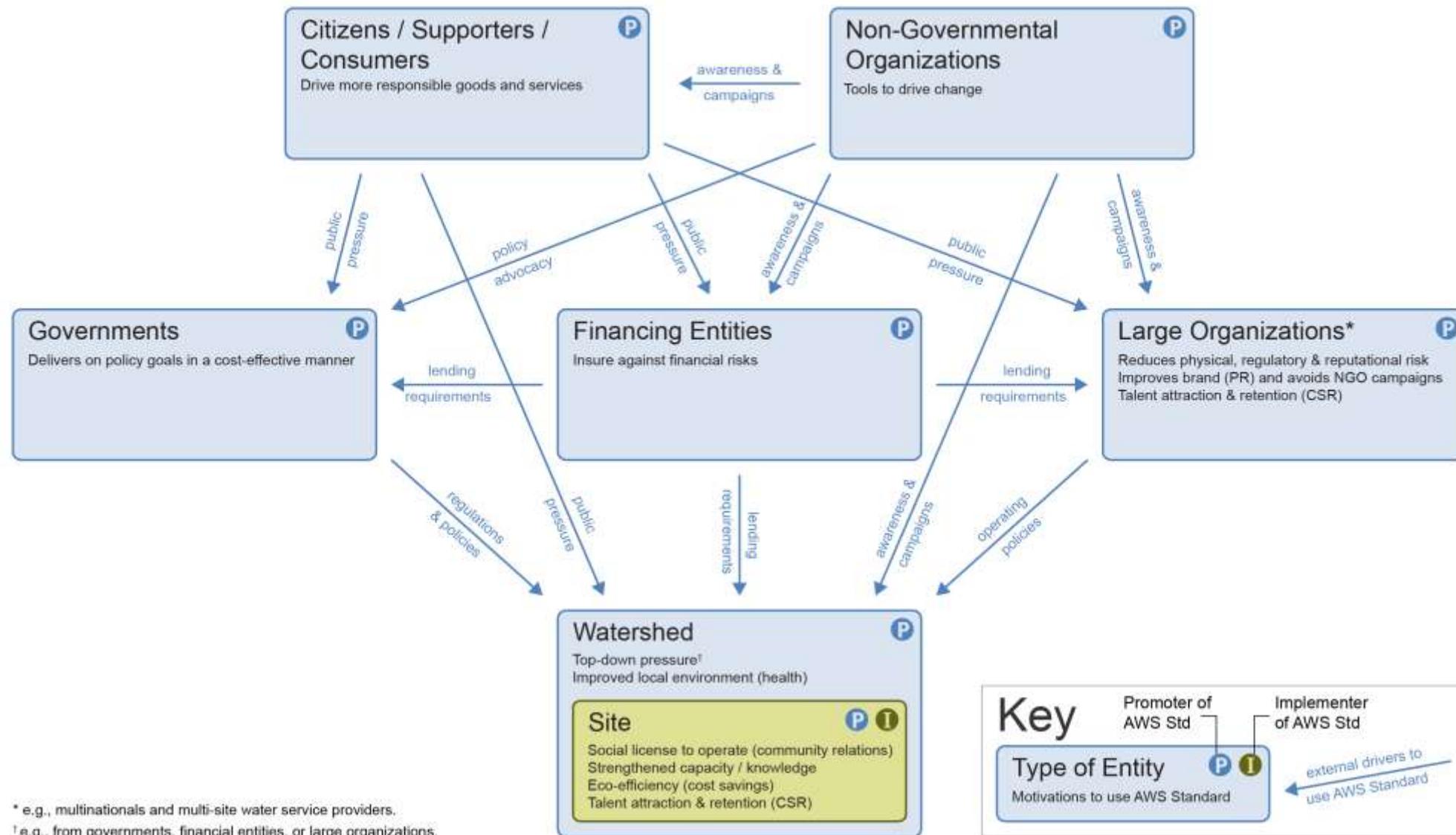
Promoters have an important role to play as water stewards as well, but in a different way than implementers. Promoters influence on indirect water use is a key aspect to water stewardship, which both the AWS and the ISDC recognize. The draft Standard is currently focused on implementers of the Standard to ensure that the focus remains local, linked to impacts, and is easily implemented on the ground. However, in so doing, the extent of indirect water use and supply chain engagement is necessarily limited.

### Question

The following is a list of some of the options the ISDC has considered and on which it would like stakeholder feedback. The Standard should:

- A) Remain focused on implementers only (site/area of influence) as it is currently drafted.
- B) Remain focused on implementers, but add stronger requirements to engage their supply chains (especially within their area of influence) to drive adoption of the Standard.
- C) Incorporate a new section on promoters, thereby expanding the scope of the Standard to cover both implementers and promoters (with different requirements for each).
- D) Other? Inputs/suggestions welcome.

Figure 3: Promoters' and Implementers' motivations for uptake of the AWS Standard



## Recognition of Other Water-Related Standards, Tools and Efforts

The AWS Standard sets out to maximize recognition of other efforts, including but not limited to, other credible standards, United Nations conventions, and widely accepted water-related tools and initiatives. The AWS Standard stands on its own right and does not preclude usage of other standards which address aspects covered by the AWS Standard. However, as part of a larger effort to increase efficiency for users, and help to promote standards integration, the intention is to identify where aspects of other standards can be considered equivalent. For example, if a criterion from another standard mirrors the intention and requirements of one of the AWS Standard's criterion, then AWS would like to recognize this criterion as equivalent. Such recognition of other standards will help to minimize the burden on Implementers who are already in conformance with another standard.

### Stakeholder Input : Recognition of Other Standards

#### Background

These question boxes have been inserted to specifically solicit stakeholder input on particularly challenging issues. Look for these throughout this document, and please provide feedback via email or online via the hyperlinks provided. The ISDC looks forward to receiving feedback on these issues to build the next draft of the AWS Standard.

Given the importance of water, it is not surprising that water is a feature in several other standards, for example commodity standards. AWS recognizes the potential for both confusion and additional burdens related to compliance with multiple standards. Our ambition is that this Standard should complement existing standards and tools and we are committed to working with other standard-setting bodies and organizations working in related fields with a view to finding appropriate models of recognition and/or equivalence. Accordingly, while not formally part of the Standard (it is an aspect of the Standard System), AWS would like to seek input on recognition of other standards, tools and efforts.

#### Question

Please provide your thoughts on the following options in terms of how the AWS Standard should recognize other standards, tools, and efforts.

## Certification Levels

Acknowledging the fact that all entities begin their water stewardship journeys at different starting points, the proposal is that the AWS Standard employ three levels, or tiers, of certification. These levels recognize an Implementer's efforts and performance in terms of the breadth and effectiveness of their stewardship actions. AWS Certified is the base level, with AWS Gold Certified being the next step up, with AWS Platinum Certified being at the top of the pyramid and representing the highest level of achievement of the Standard (Figure 4). Furthermore, per standard ISEAL requirements, the Standard will be revised on a 3 to 5 year cycle (exact timing to be confirmed), there will be the opportunity to continually increase the requirements at each of these levels to ensure that requirements increase as technology and accepted best management practices improve.

Figure 4: Proposed AWS Certification Levels

Level	Meaning	Degree of Effort		
		Site	Watershed	Supply Chain
<b>Platinum Certified</b>	Water stewards are at the cutting edge of stewardship.	<b>X</b>	<b>X</b>	<b>X</b>
<b>Gold Certified</b>	Water stewards are going above a base level to meet additional criteria to become strong leaders.	<b>X</b>	<b>X</b>	<b>X</b>
<b>Certified</b>	Water stewards are meeting a rigorous base level of criteria and are responsible water stewards.	<b>X</b>	<b>X</b>	<b>x</b>

Note: The size of the X in the figure indicates the relative amount of effort.

### Stakeholder Input : AWS Certification Levels

#### Background

The intention is that the AWS Certified level, while representing a significant improvement over business as usual, will allow a larger number of sites to begin their stewardship journey, while simultaneously recognizing those who wish to push to higher levels of achievement. This approach attempts to maximize the number of participants and help to drive continual improvement.

#### Question

Do you agree with this approach, and how can it be improved?

- A) Yes, it make sense and the general approach is acceptable.
- B) Yes, it makes sense, but the following changes should be made...
- C) No, it does not make sense. Instead it should be...

## Next Steps

The AWS, via the Water Roundtable, is committed to an equitable, open and transparent standard-setting process, following the ISEAL Code of Good Practice for Setting Social and Environmental Standards, and involving stakeholder interests from many different countries and from all parts of the supply chain.

This version of the Standard (v\_03\_13\_2012) will be open to general stakeholder input and feedback **until June 15th, 2012** with Phase I field trials to be completed by Fall 2012. A second draft will be published for input and feedback in late 2012 followed by a public review period before a final version of the Standard is released in mid-2013.

# Overview of the AWS Standard

---

## The Four AWS Principles of Water Stewardship

The fundamental intent of water stewardship is captured via the AWS Standard's four Principles of Water Stewardship.

**Principle 1 - Water Governance:** *Water Stewards shall strive to achieve equitable and transparent water governance for all water users within the defined area of influence.*

The water governance principle addresses how water is governed and managed, both internally within a site, and externally within a watershed, and includes aspects of access, rights, policy and claims. It is heavily linked to the notions of responsibility and accountability.

Water governance is defined as the internal and external mechanisms by which the water-related aspects of an entity are controlled and by which the entity is accountable to its stakeholders, including which decisions are made, how and by whom. It defines the relationships between different stakeholders and between different parts of the system<sup>3</sup>.

**Principle 2 - Water Balance:** *Water Stewards shall strive to achieve and maintain a sustainable water balance, and help to ensure adequate availability for all users at all times within the defined area of influence.*

The water balance principle addresses the amount and timing of water use, including whether the volumes withdrawn, consumed, and returned at the site and in the basin are sustainable relative to renewable supplies.

Water balance is defined as the change in water supply in a watershed determined by the difference between average precipitation, evapotranspiration, and surface water discharge at the main drain of the watershed.

**Principle 3 - Water Quality:** *Water Stewards shall contribute to the maintenance of good water quality status in terms of chemical, physical and biological characteristics to maintain ecosystems and ensure adequate water quality for all users within the defined area of influence.*

The water quality principle addresses the physical, chemical and biological properties of water, including whether water quality at the site and within the basin are within acceptable local norms.

Water quality is defined as a term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

**Principle 4 - Important Water Areas:** *Water Stewards shall identify Important Water Areas at their sites and within their defined area of influence and shall strive to protect, manage and restore such areas as necessary.*

The Important Water Areas principle addresses the spatial aspects of water, at the site and within the basin, and addresses the land forms that are a linked component of water systems, whether for cultural purposes or ecosystem services.

Important Water Areas are defined as water-related areas that are deemed particularly important by local stakeholders for the ecosystem services they provide, including cultural, spirit, recreational, economic, or biodiversity values. Examples of Important Water Areas could include riparian areas, vernal pools critical for breeding of important aquatic species, aquifer recharge zones, water-related sites of religious significance, wetlands that provide water purification services, or drinking water reservoirs. In all cases, stakeholder validation is critical to determining whether a given water area is "important" or not.

Principles are intended to be broad areas of water stewardship and provide a general idea of the focus areas and intent of responsible water stewardship. Principles are not intended to be auditable per se, rather, they are broad, fundamental intents, below which lie a number of criteria (which, in turn, can be verified through various indicators).

<sup>3</sup> The term governance applies to all entities and is distinct from the term government.

## The Structure of the AWS Standard

The first draft AWS Standard is designed around 12 steps, which are listed below:

1. **Make a leadership commitment**
2. **Measure the site's water use**
3. **Measure the use of water in the defined area of influence**
4. **Measure the current status of water in the defined area of influence**
5. **Measure the impacts and risks of the site's water use in the defined area of influence**
6. **Measure and manage the site's indirect water use**
7. **Develop plans for rare incidents**
8. **Develop and internally disseminate a water robust stewardship plan or policy**
9. **Remain in legal compliance and respect water rights.**
10. **Improve your water impacts at the site and beyond within the defined area of influence**
11. **Develop and maintain the necessary capacity to undertake water stewardship**
12. **Disclose your water stewardship plans, actions and results**

The Standard is structured as a matrix, linking the various steps with the principles and criteria to improve stewardship practice to the desired level. The core criteria generally have a heavier focus on internal actions while higher levels (achieved via extra credits) will require additional external actions.

In cases where a site is purely a facility (i.e., only physical infrastructure such as a building) and does not have land, Principle 4 (Important Water Areas) will have little to no relevance. In such cases (where core criteria are not applicable), the Implementer will indicate the criterion as not applicable along with a justification for why it is not applicable. Similarly, if a given core indicator is not applicable (e.g., zero reliance upon groundwater with respect to a core indicator that references measures on groundwater), then it again should be indicated as not applicable along with a justification for why it is not applicable.

## Reference Documents

The AWS Certification program involves the use of several documents which supplement the Standard:

1. **AWS International Water Stewardship Standard:** establishes the steps, principles, criteria and indicators, as well as the core requirements, and extra credits that an Implementer must meet to obtain the intended AWS certification level. The Standard also includes appendices that cover the glossary of terms, sectoral and regional supplements.
2. **AWS Standard Guidance Document:** provides interpretation guidance for all elements of the Standard. It is designed to assist Implementers and auditors in providing clarity to requirements of the Standard<sup>4</sup>.

<sup>4</sup> *Note: The Standard Guidance Document will be significantly expanded in the second draft according to stakeholder input.*

3. **FORTHCOMING IN SECOND DRAFT- AWS Standard Checklist:** provides a template checklist that auditors can use to evaluate performance against the Standard.

## Stakeholder Input : Structure of the Draft Standard

### Background

The logic for organizing the Standard around 12 steps is that it provides a simple, chronologically-based approach to implementing the Standard. This step-wise approach is intuitive for implementation, however it does not provide the same level of emphasis on the 4 Principles of Water Stewardship. Furthermore, the ISDC recognizes that the current format results in some redundancy.

### Questions

1. Should the Standard be kept in its current structure based around the 12 Steps (i.e., principles, criteria and indicators organized by sequential step)?
2. Should the Standard be re-organized to be based around the 4 Principles (i.e., principles, criteria which reflect the steps, and indicators)?
3. Other suggestions on how to organize the Standard?

## Stakeholder Note : AWS Verification & Certification

### **Background**

Once the final version of this Standard has been published it will be possible for implementers to have their compliance verified through a third-party verification system. The details of how verification will be performed will be decided as the Water Roundtable progresses. To do so we will be looking at existing models for verifying performance against social and environmental standards. We also anticipate including verification aspects in field trials of the draft Standard in the second phase of consultation and testing. The results of the Phase II field trials will inform the final design of the verification system, which will be released by AWS at a later point.

# The Draft AWS Standard (v\_03\_13\_2012)

## Step 1: Make a Leadership Commitment

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	1.1	The Implementer shall sign and publicly disclose a commitment by the CEO or another member of the Senior Management team of the implementing entity (or Implementer) to strive to achieve responsible water stewardship <sup>5</sup> .	N/A		N/A		N/A	
<b>Intent</b>		Criterion 1.1 is intended to ensure that there is both organizational and site-level support for becoming an AWS water steward. The <i>AWS Standard Guidance Document</i> provides a sample leadership commitment template and guidance on other suitable commitments.						
<b>Core Indicators</b>	1.1.1	A signed and publicly posted leadership commitment.	N/A		N/A		N/A	
<b>Extra Credits</b>								

## Stakeholder Input: Step 1

### Background

Having leadership buy-in is critical to enable a site to undertake the internal and external actions demanded by the Standard. Accordingly, this step was placed at the beginning of the Standard to help staff receive the necessary support from senior management to carry out the remainder of the Standard.

### Questions

4. Do the proposed criteria by principle make sense? What is missing or should be added?
5. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
6. Does the proposed indicator make sense? What is missing or should be added?
7. Should there be extra credits for this step?
8. Do you have anything else to add about this step?

<sup>5</sup> See glossary for definition of “responsible water stewardship”.

## Step 2: Measure the Site’s Water Use

Principle	1 Governance	2 Water Balance	3 Water Quality	4 Important Water Areas
<b>Core Criterion</b>	<p><b>1.2</b> The site boundaries and water sources that the site is dependent upon are established. In addition, the responsibility and accountability for measuring the site’s use of water (gathering data for 2.2, 3.2, and 4.2) is clearly stated in the description of staff responsibilities or in the budgeting of resources for external provision of these data.</p>	<p><b>2.2</b> Total water withdrawals, return flows and total water consumption shall be quantified by source, use timeframes, and use activity on a periodic basis (e.g., monthly), as well as whenever major changes occur.</p>	<p><b>3.2</b> The effluent discharge quality from the site shall be determined, monitored, and documented for each effluent discharge point, with the quantification of main water quality parameters of concern to the downstream uses of the water.</p>	<p><b>4.2</b> Existing Important Water Areas within the Implementer’s property boundaries are identified and justified via a site survey or previously determined and published stakeholder input.</p>
<b>Intent</b>	<p>Criterion 1.2 is intended to ensure that there is designated responsibility (via an individual or individuals) and resources for gathering the data necessary to inform the other principles. It is also intended to ensure someone is accountable to ensure 1.1-4.1 are in place. This criterion is also intended to help to identify water sources in relation to the defined area of influence.</p>	<p>Criterion 2.2 is intended to establish an ongoing measurement system that “enables evaluation of the site’s water balance”. In other words, to ensure that the Implementer understands how much water they are withdrawing, how much water they are consuming, returning and where their water is coming from and going to.</p>	<p>Criterion 3.2 is intended to ensure that the implementer understands the total emissions of the water quality parameters of primary concern (in their discharge effluent) to downstream users.<sup>6</sup></p>	<p>Criterion 4.2 is intended to establish a record of Important Water Areas that are located by site, and that justification for why they are deemed “Important Water Areas” is recorded.</p>
<b>Core Indicators</b>	<p><b>1.2.1</b> A map (digital or analog) of the site, water sources and water return points.</p> <p><b>1.2.2</b> A list of the name(s) of individual(s) responsible for gathering (or ensuring the collection of) data from 1.2, 2.2, 3.2, and 4.2.</p> <p><b>1.2.3</b> The name of the individual accountable for ensuring 1.2, 2.2, 3.2, and 4.2.</p> <p><b>1.2.4</b> Documentation of the financial and physical resources allocated to this activity.</p>	<p><b>2.2.1</b> Water withdrawals by source in m3 per unit time (e.g., month) (GRI EN8)</p> <p><b>2.2.2</b> Water consumption by source in m3 per unit time (e.g., month)</p> <p><b>2.2.3</b> Water returns by location in m3 per unit time (e.g., month)</p>	<p><b>3.2.1</b> A list of water quality parameters of primary concern with justifications for why those parameters were selected for local relevance (See Table 1).</p> <p><b>3.2.2</b> Quantitative measurements (per indicators) of water quality parameters of primary concern at quantification levels that are of relevance to the impact.</p>	<p><b>4.2.1</b> A map (digital or analog) of the site, including location and extent of all Important Water Areas located within the site property boundaries.</p>

<sup>6</sup> Water quality parameters shall include those that are required to be monitored by law, or at least 3 water quality parameters of concern, whichever is greater. See AWS Standard Guidance Document for details.

## Extra Credits

- An on-demand or continuous water quantity monitoring system (per core requirements) is established and maintained and data are recorded on a frequent basis (e.g., weekly basis or better).
- Water quality monitoring system is made available for real-time viewing over the internet, or provided in summary reports on a regular, frequent basis (e.g. weekly).
- Additional water quality parameters determined through site study and stakeholder input are measured and reported on a periodic basis at the site.
- Indicator data is available on-demand and recorded on a frequent basis (e.g., weekly basis or better)
- New Important Water Areas are identified through primary data collection and additional stakeholder input.
- A site survey is completed to identify all Important Water Areas.
- A letter of support from local stakeholders (community, NGOs, or indigenous groups) approving the on-site Important Water Areas.

## Stakeholder Input: Step 2

### Background

Basic awareness and understanding of the site, the sources, and water use (withdrawals, consumption, returns) underpins responsible water stewardship. Step 2 and its associated criteria are intended to ensure the site understands its site's property boundaries, the water sources it is reliant upon, and its own internal water use through space and time.

### Questions

9. Do the proposed criteria by principle make sense? What is missing or should be added?
10. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
11. Do the proposed indicators make sense? What is missing or should be added?
12. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
13. What indicators should be kept, removed from or added to Table 1 (water quality parameters of concern)? Should the water quality parameters of concern be dictated by local stakeholders?
14. Do you have anything else to add about this step?

Table 1: Water quality parameters of concern

Parameter	Indicator
1 <b>Total Suspended Solids (TSS)</b>	Average monthly and daily maximum total suspended solids in effluent (mg/L)
2 <b>Biological Oxygen Demand (BOD)</b>	Average monthly and daily maximum and daily maximum biological oxygen demand (BOD) in effluent (mg O <sub>2</sub> consumed/L over 5 days at 20°)
3 <b>Total Dissolved Solids (TDS)</b>	Average monthly and daily maximum and daily maximum total dissolved solids (TDS) in effluent
4 <b>Phosphorus</b>	Average monthly and daily maximum total phosphorus in effluent
5 <b>Nitrogen</b>	Average monthly and daily maximum total nitrogen (nitrate/nitrite) in effluent
6 <b>Ammonia</b>	Average monthly and daily maximum total ammonia in effluent
7 <b><i>Escheria coli (E.coli)</i></b>	Average monthly and daily maximum <i>Escherichia coli (E.coli)</i> count in effluent
8 <b>Fecal Coliform</b>	Average monthly and daily maximum total fecal coliform count in effluent
9 <b>Metals</b>	Average monthly and daily maximum total metals and dissolved metals (including Chromium, Cadmium, Copper, Lead, Nickel, and Zinc) in effluent
10 <b>Pesticides</b>	Average monthly and daily maximum total pesticides in effluent. <sup>7</sup>
11 <b>Temperature</b>	Average monthly and maximum/minimum monthly effluent temperature
12 <b>Potential Hydrogen (pH)</b>	Average monthly and maximum/minimum monthly pH
13 <b>Benthic macroinvertebrate</b>	Average monthly benthic macroinvertebrate assemblage at effluent outsource
14 <b>Total discharge</b>	Total water discharge by quality and destination (GRI EN21) – See GRI version 3.1 for more details
15 <b>Other anthropogenic chemicals</b>	Total monthly discharge (kg) of toxic anthropogenic chemicals (including PCBs, PAHs, dioxins/Tetrachlorodibenzofuran <sup>8</sup> )
16 <b>Other?</b>	TBD

<sup>7</sup>The site should select locally relevant pesticides of known concern, such as chlordane, DDE/DDT, dieldrin, Hexachlorobenzene, alpha-Hexachlorocyclohexane, Lindane, Tetrachlorodibenzo-p-dioxin, and Toxaphene Beginning list of pesticides and anthropogenic chemicals of concern is derived from <http://www.epa.gov/oaqps001/gr8water/2ndrpt/execsumm.html>

<sup>8</sup> Ibid.

## Step 3: Measure The Use of Water in the Area of Influence

Principle	1 Governance	2 Water Balance	3 Water Quality	4 Important Water Areas
<b>Core Criterion</b>	<b>1.3</b> Stakeholders are identified, and are engaged to establish the area of influence boundaries. In addition, the entity (or entities) responsible for monitoring the use of water in the defined area of influence is documented, and both responsibility and accountability for measuring the use of water (including gathering criteria 2.3, 3.3, and 4.3) in the defined area of influence is documented.	<b>2.3</b> The Implementer shall work towards obtaining or modeling total periodic (e.g., monthly) watershed withdrawals in the defined area of influence, listed by activity and water source.	<b>3.3</b> The Implementer shall work towards obtaining or modeling total periodic (e.g., monthly) watershed effluent discharged in the defined area of influence, listed by activity and water source.	<b>4.3</b> The Implementer shall work towards identifying Important Water Areas in the defined area of influence. In addition, the reliance by all stakeholders upon Important Water Areas in the defined area of influence is described.
<b>Intent</b>	Criterion 1.3 is intended to identify water-related stakeholders, define an area of influence for the Implementer and legitimize that area of influence through a stakeholder engagement process. It also helps the site to understand who has governance responsibility for ensuring sustainable water use within the defined area of influence. <sup>9</sup>	Criterion 2.3 is intended to ensure that the Implementer understands how much water is being withdrawn by other users in the watershed (competing water demand) and which sources are being relied upon. It provides the basis for determining the impacts of cumulative water withdrawals. <sup>10</sup>	Criterion 3.3 is intended to ensure that the Implementer understands how water is being affected by other users in the watershed (cumulative water quality impacts) and which sources are being relied upon. It provides the basis for determining the cumulative impacts on water quality. <sup>11</sup>	Criterion 4.3 is intended to ensure that the Implementer identifies all Important Water Areas within the defined area of influence and understands the values derived from these Important Water Areas from both a qualitative and quantitative angle for all stakeholders.
<b>Core Indicators</b>	<p><b>1.3.1</b> A list of stakeholders in the defined area of influence.</p> <p><b>1.3.2</b> A map of the defined area of influence.</p> <p><b>1.3.3</b> A list of the name(s) of individual(s) responsible for gathering data for 1.3, 2.3, 3.3, and 4.3.</p> <p><b>1.3.4</b> The name of the individual accountable for ensuring 1.3, 2.3, 3.3, and 4.3.</p> <p><b>1.3.5</b> Documentation of financial and physical resources available for this activity</p>	<p><b>2.3.1</b> A list of activities undertaken to meet Criterion 2.2</p> <p><b>2.3.2</b> Periodic (e.g., monthly) water withdrawal by use measured, estimated or modeled in cubic metres (or Mm3).</p>	<p><b>3.3.1</b> A list of activities undertaken to meet Criterion 3.2</p> <p><b>3.3.2</b> Periodic (e.g., monthly) mass pollutant loads for water quality parameters of concern in water effluent discharges measured, estimated or modeled (See Table 1 for a list of water quality parameters).</p>	<p><b>4.3.1</b> A list of activities undertaken to meet Criterion 4.2</p> <p><b>4.3.2</b> A map (digital or analog) of the location and extent of all Important Water Areas located within the defined area of influence.</p> <p><b>4.3.3</b> A letter of support from local stakeholders (community, NGOs, or indigenous groups) approving the Important Water Areas in the area of influence.</p>

<sup>9</sup> Governance responsibilities outside of the property boundaries are to be attributed to the appropriate public sector agency or agencies.

<sup>10</sup> Implementers are encouraged to source this information from public sector agencies responsible for this information.

<sup>11</sup> Ibid.

## Extra Credits

- The Implementer contributes to measuring the use of water (including gathering criteria 2.3, 3.3, and 4.3) in the defined area of influence.
- The Implementer assists another site within the defined area of influence to establish a water withdrawal monitoring system.
- The Implementer assists another site within the defined area of influence to establish a water quality monitoring system.
- Non-point sources of pollution are accounted for (modeled or measured)
- The Implementer assists another site within the defined area of influence to identify Important Water Areas.
- New Important Water Areas are identified through primary data collection

## Stakeholder Input: Step 3

### Background

Basic awareness and understanding of how others are using water/water area within the watershed (or defined scope) is an essential aspect to understanding joint risk and developing collective solutions. Step 3 and its associated criteria are intended to ensure the site begins to wrestle with how water is being used by others within the watershed through space and time. It is recognized that the data to inform 2.3, 3.3 and 4.3 are difficult to obtain in most watersheds and are often the responsibility of public sector agencies (e.g., watershed authorities or government ministries). Nevertheless, a site still has a responsibility to learn who its water-related stakeholders are, and understand collective water use. If data are not available due to a lack of watershed capacity, then this challenge becomes all the more important to work towards. **NOTE:** There is a lack of consensus amongst the ISDC as to whether criteria 2.3, 3.3, and 4.3 ought to be made core or not.

### Questions

15. Do the proposed criteria by principle make sense? What is missing or should be added?
16. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
17. Do the proposed indicators make sense? What is missing or should be added?
18. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
19. Should criteria 2.3, 3.3, and 4.3 be made core or not? If so, why?
20. Do you have anything else to add about this step?

## Step 4: Measure The Current Status Of Water In The Area Of Influence

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.4</b>	The entity (or entities) responsible for monitoring the status of water in the defined area of influence is documented, and both responsibility and accountability for gathering water status information for the site is documented.	<b>2.4</b>	The water flow regime shall be estimated from available information for all sources.	<b>3.4</b>	The current and desired water quality levels shall be determined, monitored and documented by receiving water body	<b>4.4</b>	The status of services provided by Important Water Areas, in particular ecosystem services and areas of cultural significance, are described, and if possible, quantified.
<b>Intent</b>		Criterion 1.4 is intended to ensure that a site understands which entity (or entities) is responsible for monitoring the status of water in the defined area of influence, and gathers information to understand the current status of water in the area of influence.		Criterion 2.4 is intended to ensure that a site understands the flow regime of the water sources upon which it is dependent. If no data are available, then the intent of this criterion is to establish a basic flow regime through time.		Criterion 3.4 is intended to allow the Implementer to model/estimate and understand how other users in the watershed are affecting water quality, and what the Implementer's contribution to downstream water quality is.		Criterion 4.4 is intended to provide the Implementer with an understanding of the status and value of Important Water Areas including the services they provide.
<b>Core Indicators</b>	<b>1.4.1</b>	A list of the entity (or entities) responsible for monitoring the status of water in the defined area of influence.	<b>2.4.1</b>	A hydrograph with at least one weekly data point for at least one year for at least one location in the defined area of influence.	<b>3.4.1</b>	A graph of weekly water quality levels (for at least three parameters, see Table 1) for at least one year, comparing actual water quality levels to desired water quality levels.	<b>4.4.1</b>	The ecological integrity or cultural integrity of the important water area is quantified or qualified with at least three metrics (See Table 2).
	<b>1.4.2</b>	A list of the name(s) of individual(s) at the site responsible for gathering data from 1.4, 2.4, 3.4, and 4.4.	<b>2.4.2</b>	Annual renewable supply			<b>4.4.2</b>	Value/amount of ecosystem (including socio-cultural) services deriving from the important water area (see Table 3).
	<b>1.4.3</b>	The name of the individual at the site accountable for ensuring 1.4, 2.4, 3.4, and 4.4.	<b>2.4.3</b>	Average of three wettest months/average of three driest months within a year	<b>3.4.2</b>	Annual minimum and maximum water quality levels recorded for sources in the defined area of influence.		
	<b>1.4.4</b>	Documentation of the financial and physical resources available for achieving this criterion						

## Extra Credits

- The Implementer contributes to measuring the status of water (including gathering criteria 2.4, 3.4, and 4.4) in the defined area of influence.
- Historical flow regimes are also estimated.
- More than three locations are reported.
- Environmental flow requirements are determined.
- Indicator data is available on-demand and recorded on periodic (e.g., weekly) basis in the defined area of influence.
- A water flow regime monitoring system is established (and maintained) outside of the site property lines.
- A water quality monitoring system is established (and maintained) outside of the site property lines by the Implementer.
- Additional water quality parameters as defined by a site study and/or stakeholder input are measured on a periodic basis (e.g., monthly) in the defined area of influence.
- More than three locations are reported.
- Indicator data is available on-demand and recorded on a periodic basis (e.g., weekly) in the defined area of influence.
- An assessment is made and reported on the significant sources of pollutants which are causing or contributing to failure to achieve the desired levels of water quality.
- Implementer contributes to public awareness and understanding/knowledge of the ecosystems of their receiving waters.

## Stakeholder Input: Step 4

### Background

Basic awareness and understanding of the status of the watershed (or defined scope) is another core element of water stewardship – one cannot steward what is not being measured. Step 4 and its associated criteria are intended to ensure the site begins to measure the current status of water in its area of influence. This helps the Implementer to understand the current status which can then be used to set future goals. It is recognized that the data to inform 4 may also be challenging to obtain in many watersheds and stewards are encouraged to engage with public sector agencies (e.g., watershed authorities or government ministries) to obtain the required data. The information in Tables 2 and 3 are intended to be a starting point for discussion but are recognized as non-comprehensive.

### Questions

21. Do the proposed criteria by principle make sense? What is missing or should be added?
22. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
23. Do the proposed indicators make sense? What is missing or should be added?
24. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
25. Are the proposed indicators in Tables 2 & 3 appropriate for use in representing the status of the health of the watershed or water body? What is missing or should be added? What needs to be changed in Tables 2 & 3?
26. Do you have anything else to add about this step?

Table 2: Key ecological and cultural aspects that inform integrity

Component of Integrity	Indicator (examples; list is not comprehensive)
1 <b>Size - area</b>	Absolute or relative size of wetland, buffer areas, remaining culturally important area, etc. (ha.)
2 <b>Size - abundance</b>	Abundance of species, # of cultural sizes (rarity), etc. (#s)
3 <b>Condition - structure / composition</b>	Percent cover of native wetland species, floristic/faunal/cultural value quality assessment
4 <b>Condition - abiotic processes</b>	Surface water runoff index, soil organic carbon, etc.
5 <b>Landscape context - composition</b>	Adjacent land use, riparian buffer width, etc.
6 <b>Landscape context - pattern</b>	Distance to nearest road, fragmentation of habitat within 1km, etc.

Table 3: Ecosystem service values<sup>12</sup>

Ecosystem Service	Indicator
1 <b>Water provision</b>	Amount/value of water that originates from the important area(s)
2 <b>Flood mitigation</b>	Volume/value of flood regulation provided by the important area(s)
3 <b>Water purification (Nutrient retention and regulation)</b>	Amount/value of nutrients regulation provided by the important area(s)
4 <b>Harvested aquatic species (e.g., fisheries, aquaculture harvest)</b>	Number/value of freshwater species dependent upon important area(s)
5 <b>Energy - hydroelectric power and other renewables (wave or wind energy)</b>	Amount/value of energy generated within defined area of influence dependent upon the important area(s)
6 <b>Aesthetic quality</b>	Value of aesthetic effects of offshore and onshore development in the important area(s)
7 <b>Carbon storage and sequestration by riparian and upland watershed vegetation</b>	Amount/value of carbon provided by the important area(s)
8 <b>Water-based recreation</b>	# of people/value of recreational opportunities provided by the important area(s)
9 <b>Water-based cultural practices</b>	% of the population using the important area(s) for cultural practices
10 <b>Crop pollination</b>	The contribution of native pollinators to enhance crop yields stemming from the important area(s)
11 <b>Erosion control</b>	The amount and value of sediment retention by vegetation in the important area(s)
12 <b>Renewable energy</b>	The potential energy from waves or wind and net present value of facilities at various sites.

<sup>12</sup> Summary list of ecosystem services provided from those generated by the Natural Capital Project's InVEST tool: <http://www.naturalcapitalproject.org/InVEST.html>

## Step 5: Measure The Impacts And Risks Of The Site's Water Use In The Area Of Influence

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.5</b>	The Implementer has a system in place to measure the impacts and risks of the site's water use, and both responsibility and accountability for gathering information on the site's water impacts and risks is documented.	<b>2.5</b>	The environmental, social and economic impacts and risks of the site's withdrawals and consumption shall be monitored, evaluated in context and reported upon through a stakeholder engagement process.	<b>3.5</b>	The environmental, social and economic impacts and risks of the site's effluents discharged to the receiving water body (including sensitive areas downstream) shall be monitored, evaluated in context and reported upon through a stakeholder engagement process.	<b>4.5</b>	The environmental, social and economic impacts and risks of the site's management of site Important Water Areas shall be monitored, evaluated in context and reported upon through a stakeholder engagement process.
<b>Intent</b>		Criterion 1.5 is intended to ensure that the Implementer understands and has both responsibility and accountability for the economic, environmental, and social impacts being generated by the site's use of water and Important Water Areas, as well as the physical, reputational and regulatory risks associated with such use.		Criterion 2.5 is intended to ensure that an Implementer understands the existing economic, environmental, and social impacts and risks of water withdrawals and consumption. It is also intended to ensure that new operations explore Environmental and Social Impact Assessments (ESIAs) in a professional manner as is necessary.		Criterion 3.5 is intended to ensure that an Implementer understands the existing economic, social, and environmental impacts and risks of water effluent discharges. It is also intended to ensure that new operations explore ESIAs in a professional manner as is necessary.		Criterion 4.5 is intended to ensure that an Implementer understands the impacts of their site's water use on Important Water Areas, and the risks that could derive from such impacts or reliance.
<b>Core Indicators</b>	<b>1.5.1</b>	A list of the name(s) of individual(s) responsible for gathering data from 1.5, 2.5, 3.5, and 4.5.	<b>2.5.1</b>	Data from at least one environmental, one social and one economic indicator (or as required by law, whichever is greater) from any on the proposed impact indicators list that relates to water balance (See Table 4).	<b>3.5.1</b>	Data from at least one environmental, one social and one economic indicator (or as required by law, whichever is greater) from any on the proposed impact indicators list that relates to water quality (See Table 4).	<b>4.5.1</b>	Data from at least one environmental, one social and one economic indicator (or as required by law, whichever is greater) from any on the proposed impact indicators list that relates to Important Water Areas (See Table 4).
	<b>1.5.2</b>	The name of the individual accountable for ensuring 1.5, 2.5, 3.5, and 4.5.			<b>3.5.2</b>	A completed risk evaluation that covers physical, regulatory and reputational risk with respect to water quality.	<b>4.5.2</b>	A completed risk evaluation that covers reputational, physical, regulatory risk related to Important Water Areas.
	<b>1.5.3</b>	The name of the individual accountable for the site's water-related impacts.	<b>2.5.2</b>	A completed risk evaluation that covers physical, regulatory and reputational risk with respect to water withdrawals and consumption.				
	<b>1.5.4</b>	List of financial and physical resources available for achieving this criterion.						
<b>Extra Credits</b>		<ul style="list-style-type: none"> <li>The Implementer engages with stakeholders in an open and transparent manner with explicit gender and indigenous peoples considerations to develop a consensus around the necessary impact reductions required 2.5, 3.5, and 4.5) in the defined area of influence is documented.</li> </ul>		<ul style="list-style-type: none"> <li>In addition to legal / core requirements, one additional environmental, one additional social and one additional economic indicator is in place.</li> <li>A full Environmental and Social Impact Assessment is completed for the site and publicly disclosed.</li> </ul>		<ul style="list-style-type: none"> <li>In addition to legal / core requirements, one additional environmental, one additional social and one additional economic indicator is in place.</li> <li>A full Environmental and Social Impact Assessment is completed for the site and publicly disclosed.</li> </ul>		<ul style="list-style-type: none"> <li>In addition to legal / core requirements, one additional environmental, one additional social and one additional economic indicator is in place.</li> <li>A full Environmental and Social Impact Assessment is completed for the site and publicly disclosed.</li> </ul>

Table 4: Proposed Impact Indicators

	<b>Social, Cultural and Health Impacts</b>	<b>Economic (Financial &amp; Livelihood) Impacts</b>	<b>Environmental (Species &amp; Habitats) Impacts</b>
1	Access to improved source(s) of drinking water (impacts to quantity or quality)	Value of tourism / number of tourists	Abundance of native freshwater species
2	Abundance of commercial fish species, shellfish, and/or edible aquatic plants	Value of hydropower generation potential / amount of hydropower generated	Abundance of freshwater species within the area of influence that are threatened or endangered
3	Area of floodplain or lakeshore farming opportunities	Value of navigation / estimated distance of water-based travel	Abundance of non-native or invasive species
4	Productivity of floodplain or lakeshore grazing (capacity)	Value of agricultural production / total agricultural production by crop	Area of high-value habitats
5	Abundance of wildlife/bird populations (hunting opportunities)	Value of water supply / number of days of disrupted water supply	Groundwater recharge capacity
6	Abundance of floodplain/lakeshore vegetables, fruits, spices, honey	Value of recreation opportunities / number of recreation enthusiasts	Water purification capacity
7	Loss of access to shallow groundwater for farming, drinking, cooking	Costs for cleaning poor-quality water	Amount of saltwater intrusion into freshwater supplies
8	Abundance of medicinal plants	Regulatory fines for improper waste discharge and associated litigation, insurance, etc.	Amount of sediment delivery; increases or decreases to downstream areas
9	Abundance of fuel-wood for cooking and heating	Rated scale of perceived reputation (social license to operate)	Amount of carbon trapping ('sequestration') capacity
10	Abundance of building materials (timber, reeds, grass, gravel, sand, clay)	Business costs of regulatory changes to costs, escalating cost of water, access, rights, amounts, timing,	Alteration of nutrient cycling and deposition on floodplains
11	Abundance of craft materials (wood, grass, reeds, feathers, shells, bone, etc)	Business costs of standards, laws etc, that affect ability to operate, viability and bottom-line	Capacity to flush/leach salts or acids from floodplain and lakeshore soils
12	Time spent to access areas to perform clothes washing or bathing (sanitation opportunities)	Market share increase/decrease in value attributed to perceptions, disclosure, response, actions, inactions, inconsistent supply etc.	Ratio of soil erosion and sediment deposition to natural soil erosion and sediment deposition processes
13	% access to sanitation	Number of water-related jobs created	Natural controls on pests and disease vectors
14	Prevalence of disease (e.g., malaria)	Other?	Flood retention capacity
15	Number of days where water-based transportation or trade routes cannot be navigated due to water withdrawals		Other?
16	Rated scale of perceived loss of recreational opportunities (hunting, fishing, wildlife viewing, boating, swimming, etc)		
17	Rated scale of perceived loss of cultural or spiritual practices		
18	Other?		

## Stakeholder Input: Step 5

---

### Background

Gaining a sense of the impacts of a site's water use within the watershed is also important to understanding joint risk and developing collective solutions. Step 5 and its associated criteria are intended to ensure the site begins to wrestle with how water use is driving impacts and what risk the site faces. It is recognized that the data to inform Step 5 are difficult to generate in many watersheds and are often linked the responsibilities of public sector agencies (e.g., watershed authorities or government ministries), however several tools are noted in the AWS Standard Guidance Document to assist sites in this regard.

### Questions

27. Do the proposed criteria by principle make sense? What is missing or should be added?
28. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
29. Do the proposed indicators make sense? What is missing or should be added?
30. Are formal risk evaluation protocols available for use in assessing the physical, regulatory, and reputational risks in the context of this principle?
31. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
32. Do you have anything else to add about this step?

## Step 6: Measure And Manage The Site's Indirect Water Use

Principle	1 Governance	2 Water Balance	3 Water Quality	4 Important Water Areas
<b>Core Criterion</b>	<p><b>1.6</b> The Implementer identifies all supply chain members located within the defined area of influence that relate to the site's indirect water use, and both responsibility and accountability for gathering this information is established.</p>	N/A	N/A	N/A
<b>Intent</b>	<p>Criterion 1.6 is intended to ensure that the Implementer begins to manage its local indirect water use without placing a large burden on the sites to engage beyond the defined area of influence.</p>			
<b>Core Indicators</b>	<p><b>1.6.1</b> A list of indirect water users located in the defined area of influence.</p> <p><b>1.6.2</b> A list of the name(s) of individual(s) responsible for gathering data from 1.6</p> <p><b>1.6.3</b> The name of the individual accountable for ensuring 1.6</p> <p><b>1.6.4</b> List of financial and physical resources available for achieving this criterion.</p>			
<b>Extra Credits</b>	<ul style="list-style-type: none"> <li>The Implementer engages with members of its supply chain within the defined area of influence to improve their water stewardship in one or more aspects.</li> <li>The Implementer performs a full indirect water use evaluation of its supply chain beyond the defined area of influence.</li> <li>The Implementer works with their full supply chain to improve their water stewardship in one or more aspects.</li> <li>The Implementer's engagement results in one or more of their supply chain adopting the AWS Standard.</li> </ul>	<ul style="list-style-type: none"> <li>Indirect (supply chain) water consumption within the defined area of influence shall be measured, and its impacts noted. <i>Associated indicator Total water consumed in m3 or Mm3 per year (or better) by indirect water use.</i></li> <li>The Implementer measures and notes the impacts of the indirect water consumption of members of its supply chain beyond the defined area of influence.</li> </ul>	<ul style="list-style-type: none"> <li>The water quality effects of the indirect water uses within the defined area of influence shall be measured.</li> <li>The Implementer measures and notes the impacts of the indirect water quality effects of members of its supply chain beyond the defined area of influence.</li> </ul>	<ul style="list-style-type: none"> <li>Indirect water users within the defined area of influence manage Important Water Areas within their property boundaries.</li> <li>The Implementer measures and notes the impacts of the management of members of its supply chain beyond the defined area of influence on Important Water Areas within their respective property boundaries.</li> </ul>

## Stakeholder Input: Step 6

### Background

Gaining a sense of the site's indirect water use is an important step in truly becoming aware of all of one's water stewardship responsibilities. The ISDC recognizes that most sites may not have the capacity nor the expertise to track indirect water use, and accordingly have minimized requirements for this step at the core level. However, recognizing that for many sites, indirect water use can represent their largest impact area and water-related risk, this step ensures that Stewards are taking initial steps and then measuring indirect water use in the higher water stewardship levels. Furthermore, the ISDC recognizes that Step 6 as it currently stands does not truly delve into indirect water use (it is simply setting the stage by identifying local supply chain members). If a simplified indirect water use method can be developed, the ISDC did suggest that such an approach may be suitable to include in the core criteria for indirect water use within the area of influence.

The AWS and the ISDC are aware of the various tools and different methods that are available calculating indirect water use each with their own nuances (e.g., the Water Footprint Network's Water Footprinting Methodology or the ISO's 14046 LCA standard on water footprinting). These will be explored and later referenced in the *AWS Standard Guidance Document* to assist sites with the challenge of calculating indirect water use.

Lastly, the ISDC also noted that in cases where there is a fundamental absence of governmental agency capacity for water governance (e.g., provide oversight and enforcement of water-related laws and regulations), there may be a need for this to be a core criterion. Furthermore, for water-providers (e.g., Water service providers/Irrigators) awareness of its customers (indirect water users) to water stewardship concepts may be a core criterion. Since these represent select cases (of which there are likely to be more), these could be potentially tackled in the regional and sectoral supplements at the discretion of stakeholders.

### Questions

33. Do the proposed criteria by principle make sense? What is missing or should be added?
34. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
35. Do the proposed indicators make sense? What is missing or should be added?
36. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
37. Do you have anything else to add about this step?

## Step 7: Develop Plans For The Water Impacts Of Rare Incidents

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.7</b>	Responsibilities, accountabilities, scenarios and plans are established at the site to evaluate rare incidents as required by criteria 2.7, 3.7 and 4.7.	<b>2.7</b>	The potential impacts of rare incidents on water supplies are evaluated by source.	<b>3.7</b>	The potential impacts of rare incidents on water quality are evaluated by source.	<b>4.7</b>	The potential impacts of rare incidents on Important Water Areas are evaluated by source.
<b>Intent</b>		Criterion 1.7 is intended to ensure that the Implementer understands who is responsible for developing plans to mitigate the impacts of rare incidents (e.g., natural disasters preparedness, emergency management, etc.), and that a designated individual is made accountable.		Criterion 2.7 is intended to ensure that the Implementer understands how rare incidents (e.g., site water storage failures, floods), are likely to affect water availability at their site and allow the site to plan accordingly.		Criterion 3.7 is intended to ensure that the Implementer understands how rare incidents (e.g., spills, algal blooms), are likely to affect water quality at their site and allow the site to plan accordingly.		Criterion 4.7 is intended to ensure that the Implementer understands how rare incidents (e.g., invasive species, spills of pollutants), are likely to affect the Important Water Areas at their site and allow the site to plan accordingly.
<b>Core Indicators</b>	<b>1.7.1</b>	List of name(s) of individual(s) responsible for gathering data from 1.7, 2.7, 3.7, and 4.7.	<b>2.7.1</b>	A list of potential rare incidents with associated probabilities, along with a description of likely effects on water quantities.	<b>3.7.1</b>	A list of potential rare incidents with associated probabilities, along with a description of likely effects on water quality.	<b>4.7.1</b>	A list of potential rare incidents with associated probabilities, along with a description of likely effects on Important Water Areas.
	<b>1.7.2</b>	List of name of the individual accountable for ensuring 1.7, 2.7, 3.7, and 4.7 are in place.	<b>2.7.2</b>	The presence of short-term contingency plans for protecting and restoring desired water volumes during rare incidents are in the water stewardship plan or policy.	<b>3.7.2</b>	The presence of short-term contingency plans for protecting and restoring desired water quality during rare incidents are in the water stewardship plan or policy.	<b>4.7.2</b>	The presence of short-term contingency plans for Important Water Areas during rare incidents are in the water stewardship plan or policy.
	<b>1.7.3</b>	List of financial and physical resources available for achieving this criterion.						
<b>Extra Credits</b>		<ul style="list-style-type: none"> <li>Long-term water scenarios, including recognized climate change scenarios, are evaluated by source and provided to public sector agencies and/or community members to assist in their adaptation planning.</li> </ul>		<ul style="list-style-type: none"> <li>Long-term water supply scenarios, including recognized climate change scenarios, are evaluated by source and disclosed.</li> <li>Implementer undertakes detailed multiple scenario modelling that exceeds the requirements set out in the Standard.</li> </ul>		<ul style="list-style-type: none"> <li>Long-term water quality scenarios, including recognized climate change scenarios, are evaluated by source and disclosed.</li> <li>Implementer undertakes detailed multiple scenario modelling that exceeds the requirements set out in the Standard.</li> </ul>		<ul style="list-style-type: none"> <li>Long-term important water area scenarios, including recognized climate change scenarios, are evaluated by source and disclosed.</li> <li>Implementer undertakes detailed multiple scenario modelling that exceeds the requirements set out in the Standard.</li> </ul>

## Stakeholder Input: Step 7

---

### Background

Preparedness to respond to infrequent or unanticipated events in both the short term and long term is another core step in responsible water stewardship. Step 7 and its associated criteria require an Implementer to think about infrequent incidents, develop plans and install systems to mitigate such situations. Since these incidents can often lead to disproportionately large water impacts, the short-term incidents are prioritized in the core criteria, while long-term scenarios under anticipated changes for temperature, precipitation and the associated ecological shifts are emphasized in the higher levels of the Standard to begin climate change adaptation planning. While it is recognized that sites often lack capacity and expertise on longer-term scenario modeling, several tools are noted in the *AWS Standard Guidance Document* to assist sites in this regard..

### Questions

38. Do the proposed criteria by principle make sense? What is missing or should be added?
39. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
40. Do the proposed indicators make sense? What is missing or should be added?
41. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
42. Do you have anything else to add about this step?

## Step 8: Develop And Internally Disseminate A Water Stewardship Plan Or Policy

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.8</b>	The Implementer develops an understandable, publicly available water stewardship strategy/plan/policy that covers all core criteria for all principles, includes specific, time-bounded targets, allocation of appropriate financial and physical resources, a commitment to continual improvement, adaptive management, defined roles and responsibilities, an internally- disseminated site-specific action plan, and a cost-benefit analysis, all in relation to Criteria 2.8, 3.8 and 4.8.	<b>2.8</b>	The Implementer has a water stewardship plan or policy that takes into account the core criteria required in Principle 2, explicitly considers implications to other issues, includes a risk management plan, and contains a commitment for continual improvement.	<b>3.8</b>	The Implementer has a water stewardship plan or policy that takes into account the core criteria required in Principle 3, explicitly considers implications to other issues, includes a risk management plan, and contains a commitment for continual improvement.	<b>4.8</b>	The Implementer has a water stewardship plan or policy that takes into account the core criteria required in Principle 4, explicitly considers implications to other issues, includes a risk management plan, and contains a commitment for continual improvement.
<b>Intent</b>		Criterion 1.8 is intended to ensure that a water stewardship strategy, plan or policy is developed for the site, and that staff are made aware of the plan. It is also intended to ensure that the plan has specificity (including time-bounded targets), is sufficiently funded to ensure success, is publicly available, has a commitment to continual improvement, and that the plan links water stewardship to costs and benefits.		Criterion 2.8 is intended to ensure that the Implementer has a robust water stewardship plan or policy in place that addresses the core aspects of Principle 2. The plan must also consider the implications of the plan, including potential trade-offs between water balance and food, energy, carbon, or biodiversity.		Criterion 3.8 is intended to ensure that the Implementer has a robust water stewardship plan or policy in place that addresses the core aspects of Principle 3. The plan must also consider the implications of the plan, including potential trade-offs between water quality and food, energy, carbon, or biodiversity.		Criterion 4.8 is intended to ensure that the Implementer has a robust water stewardship plan or policy in place that addresses the core aspects of Principle 3. The plan must also consider the implications of the plan, including potential trade-offs between Important Water Areas and food, energy, carbon, or biodiversity.

<b>Core Indicators</b>	<p><b>1.8.1</b> Presence of publicly-available water stewardship plan that contains the required components listed in Criterion 1.8.</p> <p><b>1.8.2</b> The % of full-time staff at the site who are aware of the existence of the water stewardship plan or policy,</p> <p><b>1.8.3</b> A list of name(s) of individual(s) responsible for gathering data from 1.8, 2.8, 3.8, and 4.8.</p> <p><b>1.8.4</b> List of name of the individual accountable for ensuring 1.8, 2.8, 3.8, and 4.8 are in place.</p> <p><b>1.8.5</b> List of financial and physical resources available for achieving this criterion.</p>	<p><b>2.8.1</b> Presence of water stewardship plan that contains the required components listed in Criterion 2.8.</p>	<p><b>3.8.1</b> Presence of water stewardship plan that contains the required components listed in Criterion 3.8.</p>	<p><b>4.8.1</b> Presence of water stewardship plan that contains the required components listed in Criterion 4.8.</p>
<b>Extra Credits</b>	<ul style="list-style-type: none"> <li>The plan is developed with input from local stakeholders with explicit considerations to involve marginalized groups (including women, ethnic minorities and indigenous groups).</li> <li>All of the Implementer's staff are aware of the plan or policy and how it affects their job role.</li> <li>The plan or policy contains adaptation plans for available water under recognized climate change scenarios.</li> <li>The plan or policy extends to cover aspects of indirect water use</li> <li>The existence of a third-party audited Environmental Management System that is linked to water stewardship.</li> </ul>	<ul style="list-style-type: none"> <li>The plan or policy contains adaptation plans for available water withdrawals under recognized climate change scenarios.</li> </ul> <p><i>Proposed indicator - The presence of long-term, climate change adaptation plans for water volumes in the water stewardship plan or policy.</i></p> <ul style="list-style-type: none"> <li>The plan or policy extends to cover aspects of indirect water use volumes</li> </ul> <p><i>Proposed indicator - The presence of indirect water use requirements in the water stewardship plan or policy.</i></p>	<ul style="list-style-type: none"> <li>The plan or policy contains adaptation plans for water quality under recognized climate change scenarios.</li> </ul> <p><i>Proposed indicator - The presence of long-term, climate change adaptation plans for water quality in the water stewardship plan or policy.</i></p> <ul style="list-style-type: none"> <li>The plan or policy extends to cover aspects of indirect water use quality</li> </ul> <p><i>Proposed indicator - The presence of indirect water use requirements in the water stewardship plan or policy.</i></p>	

## Stakeholder Input: Step 8

---

### Background

A water stewardship plan is fundamental to responsible water stewardship and is therefore a core requirement across all principles. The ISDC felt that aspects such as time-bounded targets, a commitment to continual improvement, and public accessibility were all very important to include in such a plan. Furthermore, it was noted that without staff awareness of such a plan, it may become ineffectual, thus making dissemination a key part of this step. Lastly, it was also noted that tying a cost-benefit analysis into the plan would assist in being able to provide a robust financial argument for why water stewardship is beneficial.

### Questions

44. Do the proposed criteria by principle make sense? What is missing or should be added?
45. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
46. Do the proposed indicators make sense? What is missing or should be added?
47. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
48. Do you have anything else to add about this step?

## Step 9: Remain In Legal Compliance And Respect Water Rights

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.9</b>	The Implementer will have a system in place to identify, document, and comply with relevant water-related legal responsibilities. In addition, the responsibility and accountability for identifying the site's water-related legal requirements shall be established.	<b>2.9</b>	Water withdrawals and consumption shall meet legal requirements. In addition, the Implementer shall assess, document, establish and respect water rights and water use rights, of local and indigenous communities, both formal and informal, that are affected by the site's water use.	<b>3.9</b>	Effluent discharge shall meet all relevant legal requirements. In addition, the Implementer shall assess, document, establish and respect the quality elements of water rights and water use rights, of local and indigenous communities, both formal and informal, that are affected by the site's water discharges.	<b>4.9</b>	Site important water area management shall meet legal compliance (if applicable). The Implementer shall assess, document, establish and respect land rights and land use rights, of local and indigenous communities, both formal and informal, that are affected by the site's water use and discharges.
<b>Intent</b>		Criterion 1.9 is intended to ensure that the Implementer has a system to ensure accountability with all water-related laws and regulations. It is also intended to ensure that the individuals with compliance responsibilities are identified within the site.		Criterion 2.9 is intended to ensure Implementers are operating within the relevant laws, including issues related to the water withdrawals and consumptions (in accordance to sources, timing, allocation, permits and all other related legal matters). Criterion 2.9 is also intended to ensure that water rights and water use rights are being respected.		Criterion 3.9 is intended to ensure Implementers are operating within the relevant laws, including issues related to the water effluent discharges (in accordance to receiving water, timing, allocation, permits and all other related legal matters). Criterion 3.9 is also intended to ensure that water use rights (with respect to water quality) are being respected.		Criterion 4.9 is intended to ensure Implementers are operating within the relevant laws, including issues related to the Important Water Areas. It is also intended to ensure that land rights and land use rights are being respected with respect to Important Water Areas <sup>13</sup> .

<sup>13</sup> Free, Prior, and Informed Consent shall form the basis for all negotiated agreements for any compensation, acquisition, or voluntary relinquishment of rights by land users or owners for water-related activities.

<b>Core Indicators</b>	<b>1.9.1</b>	A list of relevant laws and policies related to the site's water use including the specific metrics, if any, used to determine compliance.	<b>2.9.1</b>	Number and date of issuance / renewal of resource permits linked to water withdrawal	<b>3.9.1</b>	Number and date of issuance / renewal of resource permits linked to effluent discharge	<b>4.9.1</b>	Number and date of issuance / renewal of resource permits linked to management of Important Water Areas.
	<b>1.9.2</b>	A written description of the system to ensure compliance.	<b>2.9.2</b>	Annual withdrawal amounts are within the officially permitted/allocated water right amounts	<b>3.9.2</b>	Documentation that the effluent quality and characteristics of the discharge are within the officially permitted/authorized discharge amounts	<b>4.9.2</b>	Number of days since the last important water area-related legal violation.
	<b>1.9.3</b>	List of name(s) of individual(s) responsible for gathering data from 1.9, 2.9, 3.9, and 4.9.	<b>2.9.3</b>	Existing water rights and water use rights of local and indigenous communities are publicly recognized in written form or incorporated by reference from existing documents.	<b>3.9.3</b>	Number of days since the last water quality-related legal violation, specification of the nature of the violation.	<b>4.9.3</b>	Existing land rights of local and indigenous communities are publicly recognized in written form or incorporated by reference from existing documents.
	<b>1.9.4</b>	List of name of the individual accountable for ensuring 1.9, 2.9, 3.9, and 4.9 are in place.	<b>2.9.4</b>	Consent from local and indigenous leaders that water rights and water use rights are being recognized.	<b>3.9.4</b>	Existing water (quality) use rights of local and indigenous communities are publicly recognized in written form.		
	<b>1.9.5</b>	The name of the individual with ultimate responsibility for the site's legal compliance.	<b>2.9.5</b>	Number of days since the last water quantity-related legal violation, specification of the nature of the violation.				
<b>Extra Credits</b>			<ul style="list-style-type: none"> <li>The Implementer plays a recognized role in assisting local and indigenous communities to secure water rights and water use rights that they did not previously have.</li> </ul>		<ul style="list-style-type: none"> <li>The Implementer plays a recognized role in assisting local and indigenous communities to secure water use rights that they did not previously have.</li> </ul>		<ul style="list-style-type: none"> <li>The Implementer plays a recognized role in assisting local and indigenous communities to secure land rights that they did not previously have in order to address water-related impacts to important sites.</li> <li>Consent from local and indigenous leaders that land rights and land use rights are being recognized.</li> </ul>	

## Stakeholder Input: Step 9

---

### Background

Legal compliance underpins all water stewardship. However, in addition to identifying water-relevant laws and regulations (the ISDC felt that other, non-water-related laws and policies were better left to other standards and systems), the ISDC felt it was important to acknowledge local community and indigenous water and land rights as these are not embedded in legislation in many countries but are an important aspect of water stewardship since these groups were the original stewards of water on our planet.

### Questions

49. Do the proposed criteria by principle make sense? What is missing or should be added?
50. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
51. Do the proposed indicators make sense? What is missing or should be added?
52. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
53. Do you have anything else to add about this step?

## Step 10: Improve Your Water Impacts

Principle	1 Governance	2 Water Balance	3 Water Quality	4 Important Water Areas
<b>Core Criterion</b>	<b>1.10</b> The Implementer has an annual action plan underway, as well as individuals assigned as responsible and accountable on progress towards 2.10, 3.10, and 4.10.	<b>2.10</b> The Implementer continually manages water withdrawals and consumption to the point of mitigating actual and potential impacts outside the site.	<b>3.10</b> The Implementer continually manages water quality (effluent discharge) of the site to the point of mitigating actual and potential impacts outside the site.	<b>4.10</b> The Implementer continually makes progress Important Water Areas within the Implementer's property lines until such time as those areas are fully protected, managed and/or restored.
<b>Intent</b>	Criterion 1.9 is intended to ensure that the Implementer has the necessary responsibilities and accountabilities to ensure capacity to deliver 2.10, 3.10, and 4.10.	Criterion 2.10 is intended to ensure that the Implementer is undertaking continually improving actions to the point that impacts within defined area of influence have been addressed (i.e., the water balance necessary to support all actual uses, including a natural flow regime, is in place). The intent is not to have the Implementer needlessly lowering water withdrawals and consumption in water-abundant areas, but rather to keep working until impacts are mitigated and then maintain this situation. The focus is intended to reduce impacts, not reduce water use per se.	Criterion 3.10 is intended to ensure that the Implementer is undertaking continually improving actions to the point that impacts within the defined area of influence have been addressed (i.e., the water quality necessary to support all actual uses is in place).	Criterion 3.10 is intended to ensure that the Implementer takes continually appropriate action for those Important Water Areas within their control depending on the area's needs to the point that those areas are providing the services to other stakeholders within the defined area of influence. In effect, it demonstrates that the Implementer is undertaking continually improving actions to ensure that Important Water Areas are ultimately protected, well-maintained, or restored.

---

**Core  
Indicators**

- 1.10.1** List of actions completed against annual action plan.
- 1.10.2** List of name(s) of individual(s) responsible for carrying out 1.10, 2.10, 3.10, and 4.10.
- 1.10.3** List of name of the individual accountable for ensuring 1.10, 2.10, 3.10, and 4.10 are in place.

- 2.10.1** Amount of water withdrawn per unit of production (m<sup>3</sup> or Mm<sup>3</sup> per ton of product or volume of service)
- 2.10.2** Quartile water use efficiency performance relative to industry benchmark (percentile) – IF AVAILABLE
- 2.10.3** Absolute reduction in water withdrawals since application of AWS Standard (m<sup>3</sup> or Mm<sup>3</sup>, must note baseline yr)
- 2.10.4** Absolute reduction in water consumption since application of AWS Standard (m<sup>3</sup> or Mm<sup>3</sup>, must note baseline yr)
- 2.10.5** Actions taken to limit water withdrawals during low flow periods documented.
- 2.10.6** Percentage and total volume of water recycled and reused (GRI EN10)

- 3.10.1** Amount of effluent per unit of production (unit of effluent discharge per ton or unit of service). See Table 1.
- 3.10.2** Quartile water use quality performance relative to industry benchmark (percentile) – IF AVAILABLE
- 3.10.3** Absolute improvement in effluent water quality or reduction in discharged pollutants since application of AWS Standard (unit of effluent discharge, with noted baseline year). (See Table 1).
- 3.10.4** Actions taken to limit poor quality effluent discharges during periods of poor water quality documented.

- 4.10.1** Area of important sites that are under informal/formal protection, under site-specified management, or site-controlled restoration – planned, underway, or completed (Ha).
- 4.10.2** The ecological integrity values of any site Important Water Areas are improving (see Table 2).

## Extra Credits

- The Implementer is engaged with policy makers to raise awareness and/or strengthen river basin, regional, national and international water stewardship legislation/policy
  - The Implementer is recognized by stakeholders in the defined area of influence for the contribution of their water stewardship actions to driving improvements in impacts.
- The Implementer is undertaking action and three or more core impact indicators from each category are improving.
  - The Implementer, working with its supply chain, reduces indirect water use impacts related to water balance (measured through improvements in core impact indicators from each category)
  - Water withdrawals are within environmental flow requirements
  - Saved water allocations are legally granted to environmental flow requirements.
  - Water withdrawals do not contribute to the depletion of groundwater resources beyond replenishment capacities.
  - Groundwater resources are recharged.
- Possible indicators - Amount of permitted water allocation donated to environmental flows (m3)*
- *Amount of area of site impervious surface (m2)*
  - *Amount of water released to ensure environmental or cultural flows are maintained (m3 or Mm3)*
  - *% of indirect water use working towards or under AWS certification (% of total indirect water use)*
- The Implementer is undertaking action and three or more core impact indicators from each category are improving.
  - The Implementer, working with its supply chain, reduces indirect water use impacts related to water quality (measured through improvements in at least 3 core impact indicators from each category)
  - Water quality at the effluent discharge point is within the tolerance ranges of local sensitive indicator species and other actual uses of the water (e.g. drinking, recreation).
- Possible indicators - Absolute increase in access to sanitation within defined area of influence since application of AWS Standard (% , with noted baseline year)*
- *Absolute increase in access to improved drinking sources within defined area of influence since application of AWS Standard (% , with noted baseline year)*
  - *% of indirect water use working towards or under AWS certification (% of total indirect water use)*
- The Implementer is undertaking action and three or more core impact indicators from each category are improving.
  - The Implementer, working with its supply chain, reduces indirect water use impacts related to important water sites (measured through improvements in at least 3 core impact indicators from each category)
  - Important Water Areas are placed into permanent protection through a legally-binding agreement.
  - Important Water Areas outside of the Implementer's control are protected, managed and/or restored.
  - The Implementer is recognized by stakeholders for their efforts.

## Stakeholder Input: Step 10

---

### Background

Actions are the most important aspect to water stewardship since they “speak louder than words”. The actions in the core criteria are somewhat numerous, but do focus on site-level actions, while actions and impacts outside of the scope are related to higher levels of achievement. This approach endeavours to require performance at the site level at the core, but also encourages sites to attempt to drive performance in their watershed as well in order to be recognized at higher levels.

### Questions

54. Do the proposed criteria by principle make sense? What is missing or should be added?
55. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
56. Do the proposed indicators make sense? What is missing or should be added?
57. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
58. Do you have anything else to add about this step?

## Step 11: Establish The Necessary Capacity To Carry Out All Of The Steps

Principle	1	Governance	2	Water Balance	3	Water Quality	4	Important Water Areas
<b>Core Criterion</b>	<b>1.11</b>	The Implementer has a system to develop organizational capacity, as well as that of responsible and accountable individuals assigned to ensure progress on 2.11, 3.11, and 4.11. The governance capacity of the entity/entities responsible for water resources in the area of influence shall also be described.	<b>2.11</b>	The Implementer's capacity is sufficient to successfully implement the actions identified in Principle 2.	<b>3.11</b>	The Implementer's capacity is sufficient to successfully implement the actions identified in Principle 3.	<b>4.11</b>	The Implementer's capacity is sufficient to successfully implement the actions identified in Principle 4.
<b>Intent</b>		Criterion 1.11 is intended to ensure that the Implementer has a water stewardship capacity building system in place. It is also intended to ensure that the responsibilities and accountabilities are clearly understood. Lastly, it is intended to ensure that the site has a rough sense of the governance capacity within the defined area of influence.		Criterion 2.11 is intended to ensure that the Implementer has the capacity to deliver the core requirements noted in Principle 2.		Criterion 3.11 is intended to ensure that the Implementer has the capacity to deliver the core requirements noted in Principle 3.		Criterion 4.11 is intended to ensure that the Implementer has the capacity to deliver the core requirements noted in Principle 4.
<b>Core Indicators</b>	<b>1.11.1</b>	A written description of the site's capacity development system.	<b>2.11.1</b>	The amount of human, financial and infrastructural capital that is allocated to implement Principle 2.	<b>3.11.1</b>	The amount of human, financial and infrastructural capital that is allocated to implement Principle 3.	<b>4.11.1</b>	The amount of human, financial and infrastructural capital that is allocated to implement Principle 4.
	<b>1.11.2</b>	List of name(s) of individual(s) responsible for gathering data from 1.11, 2.11, 3.11, and 4.11.	<b>2.11.2</b>	A list of competencies (professional qualifications or equivalent expertise) of staff involved in carrying water stewardship activities at the site related to Principle 2.	<b>3.11.2</b>	A list of competencies (professional qualifications or equivalent expertise) of staff involved in carrying water stewardship activities at the site related to Principle 3.	<b>4.11.2</b>	A list of competencies (professional qualifications or equivalent expertise) of staff involved in carrying water stewardship activities at the site related to Principle 4.
	<b>1.11.3</b>	List of name of the individual accountable for ensuring 1.11, 2.11, 3.11, and 4.11 are in place.						
	<b>1.11.4</b>	A written description of the governance capacity within the area of influence (See <b>AWS Standard Guidance Document</b> for more details).						
	<b>1.11.5</b>	List of financial and physical resources that are dedicated to achieving the objectives of 1.11, 2.11, 3.11, and 4.11						

## Extra Credits

- The Implementer works to build the capacity of water governance in the defined area of influence.
- A stakeholder education program is implemented that includes the promotion, awareness, uptake and adoption of inexpensive, small-scale technologies that improve water-related impacts at the household and community level, as well as recognition of women's roles (management and decision making) and knowledge about water resources at the household and community level.
- Presence of a third-party evaluation of capacity to implement Principle 2.
- The Implementer increases other's capacity within the area of influence to tackle water balance issues.
- Presence of a third-party evaluation of capacity to implement Principle 3.
- The Implementer increases other's capacity within the area of influence to tackle water quality issues.
- Presence of a third-party evaluation of capacity to implement Principle 4.
- The Implementer increases other's capacity within the area of influence to tackle Important Water Areas issues.

## Stakeholder Input: Step 11

### Background

Behind the ability to carry out any water stewardship effort, there is the need to have the necessary capacity in place. Capacity can take numerous forms – most often human resources – but also financial and infrastructure resources. Capacity is a challenge at both the site level and the watershed level as well – and both are very important to good water stewardship at the watershed level. Such is the importance of capacity that the ISDC felt that it should be linked across all four principles. Lastly, since capacity begins with awareness and education, aspects of these were inserted here as well.

### Questions

59. Do the proposed criteria by principle make sense? What is missing or should be added?
60. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
61. Do the proposed indicators make sense? What is missing or should be added?
62. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
63. Do you have anything else to add about this step?

## Step 12: Disclose Your Water Stewardship Plans, Actions And Results

Principle	1 Governance	2 Water Balance	3 Water Quality	4 Important Water Areas
<b>Core Criterion</b>	<b>1.12</b> The Implementer discloses the general governance structure of the site's management, including the names of those accountable for legal compliance with water-related laws and regulations.	<b>2.12</b> The Implementer discloses plans, annual targets, actions and results in relation to Principle 2. In addition the Implementer must publicly disclose any legal violations with respect to Principle 2.	<b>3.12</b> The Implementer discloses plans, annual targets, actions and results in relation to Principle 3. In addition the Implementer must publicly disclose any legal violations with respect to Principle 3.	<b>4.12</b> The Implementer discloses plans, annual targets, actions and results in relation to Principle 4. In addition the Implementer must publicly disclose any legal violations with respect to Principle 4.
<b>Intent</b>	Criterion 1.12 is intended to ensure that there is a level of transparency with respect to the site's governance, as well as a level of public accountability.	Criterion 2.12 is intended to ensure that there is a level of transparency with respect to the site's water withdrawals.	Criterion 3.12 is intended to ensure that there is a level of transparency with respect to the site's water effluent discharges.	Criterion 2.12 is intended to ensure that there is a level of transparency with respect to the site's management of Important Water Areas.
<b>Core Indicators</b>	<p><b>1.12.1</b> A publicly accessible and understandable description of the governance structure.</p> <p><b>1.12.2</b> The name(s) of the person (or persons) accountable for compliance with water-related laws and regulations.</p>	<b>2.12.1</b> A publicly accessible and understandable plan, targets, actions, results and legal violations with respect to Principle 2.	<b>3.12.1</b> A publicly accessible and understandable plan, targets, actions, results and legal violations with respect to Principle 3.	<b>4.12.1</b> A publicly accessible and understandable plan, targets, actions, results and legal violations with respect to Principle 4.
<b>Extra Credits</b>	<ul style="list-style-type: none"> <li>The Implementer discloses their water stewardship practices according to recognized, global disclosure frameworks, including noting economic aspects of water management.</li> <li>In case there is no public water report, the operational water management is disclosed in an equivalent manner reporting on but not exclusively: <ul style="list-style-type: none"> <li>- Actions and achievements linked to sustainable water management.</li> <li>- Definition of water-related risks and preventive measures implemented.</li> <li>- The results of the water impact assessment are disclosed.</li> <li>- The operational water resources management strategy.</li> </ul> </li> </ul>			

## Stakeholder Input: Step 12

---

### Background

The ideas of disclosure and transparency are also underpinnings to responsible stewardship. These actions (transparency and disclosure) help to build trust amongst internal and external stakeholders, and trust is a key component for working together to tackle the shared challenges facing watersheds. This step was originally embedded in the various steps but was separated out to note it as a clearly distinct step that was central to water stewardship. NOTE: The ISDC discussed the fact that disclosure requirements may need to vary by region since full disclosure in certain regions of the world may be interpreted differently and could undermine the basic objective of awareness, education, and trust.

### Questions

64. Do the proposed criteria by principle make sense? What is missing or should be added?
65. Is this step in the right order? Are there steps that should come before this step? If so, what are they?
66. Do the proposed indicators make sense? What is missing or should be added?
67. Do the extra credits make sense? Should any of them be made core? What is missing or should be added?
68. Should this step vary by region or be globally consistent?
69. Do you have anything else to add about this step?

# Appendix A: Glossary of Terms

## Stakeholder Input : Appendix A - Glossary

### Background

The glossary provides a working set of definitions for various terms used throughout the Standard. Definitions have been noted as to their sources, but are a starting point and are very much open to improvement.

### Questions

70. What terms are missing?
71. Which definitions are weak and can be improved? If so, which sources do you suggest?

*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.

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

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

**Alliance for Water Stewardship (AWS):** The AWS is an alliance that aims to establish a global water stewardship program that will recognize and reward responsible water managers and users by creating opportunities for enhanced community standing and competitive advantage. It is an open alliance and welcomes new organizations. Accordingly, organizations that formally join AWS are also referred to as Board Organizations.

**Alliance for Water Stewardship global Water Roundtable (AWS WRT):** The iterative process of developing the IWSS. At the centre of this process is the continual, transparent engagement with the full range of stakeholders interested in reviewing, testing, and commenting on the IWSS. The AWS WRT began in June, 2010 and is slated to be completed by July, 2013.

**Area of Influence (also referred to as Sphere of Influence):** the capacity or power of the entity to be a compelling force on or produce effects on the actions, behavior, opinions, etc., of others formally or informally and to move or impel stakeholders to some action through non-hierarchical means. (Expertise, sanctions, positive reinforcement, persuasion, coaching, relationship building, capacity building, charisma etc.)

*Source: Adapted from UN Global Compact*

**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*

**AWS Secretariat:** The AWS Secretariat is a group of individuals who perform the day-to-day work within AWS and assist the ISDC. Typically Secretariat members are staff employed by the various Board Organizations. All Secretariat members have TOR provided by the AWS Board and work plans. As of April 2011, the AWS Secretariat consists of the AWS Executive Director, Secretary, Global Water Roundtable Coordinator, Assistant Water Roundtable Coordinator, and Global Regional Initiative Coordinator, the North American and Latin America & Caribbean Regional Coordinators, with an AWS Communications Coordinator outstanding, along with missing regional representatives.

*Source: Alliance for Water Stewardship, 2011*

**Basin:** See Watershed.

**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*

**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*

**Biodiversity:** See biological diversity

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

**Catchment:** See Watershed.

**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.

*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.*

**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))*

**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*

**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.

**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 is able to accept it.

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

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

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

**Customary rights:** Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.

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

**Cultural Rights:** Indigenous and minority rights and empowerment, including respect for self determination, intellectual property, benefit sharing and religious tolerance

*Source: ISEAL Alliance (2010) Impacts Code*

**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 of abstracted water that is discharged to the catchment's fresh water resources either before use as losses or after use, e.g. hydropower, in m<sup>3</sup>. (Discharges to the sea are excluded.) Also see **effluent**.

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

**Disclosure:** to clearly communicate the objectives, strategies, and outcomes of engagement efforts. The effectiveness of this disclosure depends on many factors, including developing effective avenues of communication, targeting the right audiences, providing meaningful information.

*Source: Adapted from CEO Water Mandate, Guide to Responsible Business Engagement with Water Policy, 2010*

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

*Source: Adapted from Oxford Dictionary*

**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](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 discharge (synonymous with Effluent):** Waste water (treated or untreated) from a production process that is discharged (directly or indirectly) into the surface water (see also wastewater).

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

**Endangered species:** Any species which is in danger of extinction throughout all or a significant portion of its range.

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

**Entity:** See implementing entity.

**Environmental and Social Impact Assessment:** A study done to determine the probable environmental and social impacts of a proposed project, to assess possible alternatives and to create environmental and social mitigation plans for a project that may have significant environmental and social impacts.

*Source: Adapted from World Bank and IMF Bretton Woods project, <http://www.brettonwoodsproject.org/glossary/item.shtml?x=344973>*

**Environmental flow (or E-flow):** Environmental 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/download\\_documents/Brisbane\\_Declaration%20with%20organizations\[1\].pdf](http://www.eflownet.org/download_documents/Brisbane_Declaration%20with%20organizations[1].pdf)*

**Environmental impact:** is 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*

**Estimation:** a rough calculation of the value, number, quantity, or extent of something. Estimates required in the Standard may be modeled or developed on best professional guesses or experienced judgment and need not be measured or validated.

*Source: Adapted from the Oxford Dictionary*

**Evaporation:** is the transformation of liquid water into vapour as a result of heating.

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

**Facility:** the physical infrastructure located on a site.

**Flow regime (environmental):** is 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:** is water that infiltrated, usually millennia ago, and has been stored underground since that time and frequently denominated as old water and non-renewable.

*Source: 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.

**Global Reporting Initiative (GRI):** is a standardized framework that sets out the principles and indicators by which organizations can measure and report their economic, environmental, and social performance.

*Source: Global Reporting Initiative, 2011. Available online at: <http://www.globalreporting.org>*

**Good water status:** refers to the general protection of the water resource so it is fit for its designated use.

**Governance:** encompasses the internal and external mechanisms by which an entity is controlled and by which it is accountable to its stakeholders, including which decisions are made, how and by whom. It defines the relationships between different stakeholders and between different parts of the system. The term governance applies to all entities and is distinct from the term government.

*Source: adapted from ISEAL Alliance, Emerging Initiatives Module 4: Models of Governance, 2007*

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

*Source: Oxford Dictionary*

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

*Source: World Health Organization*

**High Conservation Value Areas:** water areas (including tidally influenced estuaries or brackish waters) that are, 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)
- meeting basic needs of local communities
- critical to local communities' traditional cultural identity
- critical for climate change adaptation

*Source: High Conservation Value Network Resource Network, <http://www.hcvnetwork.org/site-info/The%20high-conservation-values-folder>*

**Impact:** 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.

*Source: ISEAL Alliance (adapted from OECD Glossary)*

**Implementer:** See implementing entity.

**Implementing entity:** The formal or informal company, organization, site, or other group of individuals who are applying the AWS Standard at a site and watershed level. The implementing entity may be a portion of a larger formally organized body, such as a single site of a larger company or public sector water service provider, or may, in the case of SMEs, represent the entire company/WSP.

**Implementer's Area of Influence (also referred to as the Implementer's Sphere of Influence or defined area of influence):** the area in which an Implementer, or the Implementer's management, has the capacity or power to be a compelling force on or produce effects on the actions, behavior, opinions, etc., of others formally or informally and to move or impel stakeholders to some action through non-hierarchical means. (Expertise, sanctions, positive reinforcement, persuasion, coaching, relationship building, capacity building, charisma etc.). This area is recognized as a diminishing series of concentric rings beginning with the implementing site's facility, the site's property, the adjacent properties, the local communities, the broader watershed and government institutions.

*Source: Adapted from UN Global Compact (See AWS Standard Guidance Document for more details)*

**Important part of concerned interests:** Clearly recognized representative of a segment of concerned interests that have been engaged in the discussions as a member of the decision-making body, such as all ISDC members.

**Important Water Areas:** The specific ecological, socio-cultural, and economic areas of a watershed that, if impaired or lost, would adversely impact the environmental, social, cultural or economic benefits derived from the watershed in a significant or disproportionate manner. This includes 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.

**Indicator:** Quantitative or qualitative factor or variable that provides a simple and reliable means to measure 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 lands and territories:** Indigenous peoples have the right to own, develop, control and use the lands and territories, including the total environment of the lands, air, waters, coastal seas, sea-ice, flora and fauna and other resources which they have traditionally owned or otherwise occupied or used.

*Source: Draft Declaration of the Rights of Indigenous Peoples: Part VI) Article 26*

[http://www.unhcr.ch/huridocda/huridoca.nsf/\(Symbol\)/E.CN.4.SUB.2.RES.1994.45.En](http://www.unhcr.ch/huridocda/huridoca.nsf/(Symbol)/E.CN.4.SUB.2.RES.1994.45.En)

**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 Use:** 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, and 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.

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

**Input:** The physical, human, financial and capital resources applied to a project and to its component activities.

*Source: ISEAL Alliance (2010) Impacts Code*

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

**International Standard Development Committee (ISDC):** The ISDC will serve as the decision-making body and be made up of 15 people. Members of the ISDC will agree upon and document its decision-making process.

**Important Water Areas:** Water-related areas that are deemed particularly important by local stakeholders for the ecosystem services they provide, including cultural, spirit, recreational, economic, or biodiversity values. Examples of Important Water Areas could include riparian areas, vernal pools critical for breeding of important aquatic species, aquifer recharge zones, water-related sites of religious significance, wetlands that provide water purification services, or drinking water reservoirs. In all cases, stakeholder validation is critical to determining whether a given water area is "important" or not.

**Job Role (syn. job duties):** The specific, primary duties (or tasks) that a job was established to perform, and if they were not performed would severely impact the nature of the job. These duties are typically 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](http://www.indiana.edu/~ubrs/training/performance_management/determine.htm)

**Local laws:** Includes all legal norms given by units of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.

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

**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*

**Nature:** The phenomena of the physical world collectively, 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: Water, energy, biodiversity and food are interconnected in important ways, and actions in one sector may either help or harm the others.

**Objective(s):** The broadest-level aim(s) of the Standard.

**Outcome:** The likely or achieved short-term and medium-term results from the implementation of a standards system (adapted from OECD Glossary).

*Source: ISEAL Alliance (adapted from OECD Glossary).*

**Output:** The products, capital goods and services which result directly from the activities of a standards system

*Source: ISEAL Alliance (adapted from OECD Glossary).*

**Physical water risk:** the costs imposed on an entity 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, March 31, 2008*

**Pilot Testing Body:** Pilot Testing Bodies are entities that are granted permission to test the draft IWSS within a non-exclusive geographic scope. They will have AWS’s endorsement to carry out testing, will receive access to AWS materials and assistance with funding efforts, and in return, will provide feedback and reporting in an agreed upon manner.

**Point source (of pollution):** are primarily discharges from municipal wastewater treatment plants associated with population centres or effluent discharges from industry.

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

**Positive impact(s):** The long-term effects resulting from the implementation of a standards system, either directly or indirectly, intended or unintended which are generally beneficial to stakeholders (also see “Impacts”).

**Principle:** A fundamental statement about a desired outcome; in AWS’s case, of water stewardship. Setting Social and Environmental Standards v5.0 ISEAL Code of Good Practice 2010

**Promoter:** See promoting entity.

**Promoting entity:** The formal or informal company, organization, site, or other group of individuals who are helping to drive the voluntary or required uptake of the Standard. Promoting entities may take any form, but would include such entities as government agencies, large companies, non-governmental organizations, buyers or consumer groups, and financing entities.

**Promoter’s Area of Influence (also referred to as the Promoter’s Sphere of Influence):** the area in which a Promoter, or the Promoter’s management, has the capacity or power to be a compelling force on or produce effects on the actions, behavior, opinions, etc., of others formally or informally and to move or impel stakeholders to some action through non-hierarchical means. (Expertise, sanctions, positive reinforcement, persuasion, coaching, relationship building, capacity building, charisma etc.). This area is recognized as a diminishing series of concentric rings beginning with the Promoter’s workplaces, supply chains, marketplaces, communities, and governments.

*Source: Adapted from UN Global Compact (See AWS Standard Guidance Document for more details)*

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

*Source: ISEAL Alliance (2010) Impacts Code*

**Rare incidents:** incidents that occur infrequently, outside the control of an entity, which will have an impact on the entity and therefore should be planned for. For example: spills or extreme weather events such as floods and droughts. Emergencies, hazards and unforeseen events all fall into this description.

**Regional Coordinator:** The Regional Coordinator will manage entities selected as Regional Conveners. The Regional Coordinator is charged with facilitating regional variance, input, and feedback about the AWS Standard. Responsibilities of the Regional Coordinator will include, but are not limited to, ensuring that their specific Region becomes an integral part of the AWS WRT, coordinating regionally specific sector engagement in the standard-setting process, overseeing regional pilot work, publicizing and handling logistics for regional meetings, and assisting with ISDC meetings when necessary. The Regional Coordinators will be managed in the same manner of the AWS WRT.

**Regional Meeting Conveners (RMCs):** Regional Meeting Conveners (RMCs) are regionally-based entities with a focus on the AWS WRT and the creation of the IWSS. In other words, within the context of the AWS WRT, the Regional Initiatives will likely play the role of RMC. However, unlike RIs, RMCs will only exist for as long as the Standard is under development and will cease once the IWSS is completed. RMCs can be one and the same with RIs, or they may differ. For more information on RMCs, see below section on the Water Roundtable and Regional Initiatives. Each RMC will have a designated coordinator who will participate in the AWS Secretariat.

**Regional Initiatives (RIs):** Regional Meeting Conveners (RMCs) are regionally-based entities with a focus on the AWS WRT and the creation of the IWSS. In other words, within the context of the AWS WRT, the Regional Initiatives outlined in the AWS WRT will likely play the role of RMC. However, unlike RIs, RMCs will only exist for as long as the Standard is under development and will cease once the IWSS is completed. RMCs can be one and the same with RIs, or they may differ. For more information on RMCs, see below section on the Water Roundtable and Regional Initiatives. Each RMC will have a designated coordinator who will participate in the AWS Secretariat.

**Regulatory water risk:** the costs imposed on an entity due to permits, 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, March 31, 2008*

**Reputational water risk:** the costs imposed on an entity 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, March 31, 2008*

**Responsibility:** a sphere of duty or obligation assigned to a person by the nature of that person's position, function, or work

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

**Risk:** Risks can arise due to changes in regulatory, physical climate or other conditions as a result of climate change or climate change policy that have the potential to have a negative impact on your business. Examples include increases in operating costs due to the imposition of a carbon tax, increased operating costs due to new requirements for refrigeration, or changes in consumer behaviour leading to a reduced demand for your product.

*Source: Carbon Disclosure Project, Glossary of Terms, <https://www.cdproject.net/Documents/Guidance/2012/Technical/glossary-of-terms.pdf>*

**Risk Assessment:** See water risk assessment

**River Basin:** See Watershed.

**Scope:** The area over which the implementing entity intends to apply the requirements of the standard.

*Source: Adapted from ISO.*

**Site:** an entity (including the facility and the property over which it has control) that is withdrawing water or returning water.

**Source water (aka water source):** point from which an entity obtains its water supply. This could be from any single or combination of direct fresh or salty supplies or from treatment facilities and 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.

**Standard:** 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

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

**Structure:** The hierarchical breakdown of how the standard is technically structured (and written); The arrangement of and relations between the parts or elements of something complex.

*Source: Alliance for Water Stewardship, 2011*

**Substantial issues:** Issues that materially affect the Standard or decision being taken as appropriate. B

*Source: WWF, Aquaculture Dialogues Process Guidance Document, Appendix A, September 2008*

<http://www.worldwildlife.org/what/globalmarkets/aquaculture/WWFBinaryitem9674.pdf>

**Sustained opposition:** Sustained opposition means that an important part of concerned interests has indicated, despite meaningful discussion of an issue, that the position or solution put forward continues to be unacceptable to that interest.

Source: WWF, *Aquaculture Dialogues Process Guidance Document, Appendix A, September 2008*  
<http://www.worldwildlife.org/what/globalmarkets/aquaculture/WWFBinaryitem9674.pdf>

**Supply chain:** is 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: is the use of water by the supply chain (including embedded/virtual water).

**Threatened species:** Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

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

**Transparency:** Transparency means that the decision-making process and the justification for a decision on a membership application are made available to the applicant and are based on clear criteria and application procedures.

Source: *ISEAL Alliance (2004) Standard-Setting Code*

**Use rights:** Rights for the use of water resources that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption, use or particular harvesting techniques of water resources.

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

**Virtual water (aka Embedded water):** The virtual-water content of a product is the freshwater “embodied” in the product, not in real sense, but in 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*

**Wastewater:** water which 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, waste water from one user can be a potential supply to a user elsewhere. Cooling water is not considered to be waste water.

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

**Water abstraction (withdrawal):** is 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 in a watershed determined by the difference between average precipitation, evapotranspiration, and surface water discharge at the main drain of the watershed.

Source: *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 consumption:** represents water that was used by the operation but not returned to its proximate source. It involves evaporated water, transpired, incorporated into products, crops or waste, consumed by man or livestock, or 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 discharge:** is the introduction of used water by an organisation into the environment, with its associated quality characteristics, including, for example, the temperature of the discharge.

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

**Water Flow Regime (or 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:** encompasses the internal and external mechanisms by which the water-related aspects of an entity are controlled and by which the entity is accountable to its stakeholders, including which decisions are made, how and by whom. It defines the relationships between different stakeholders and between different parts of the system. The term governance applies to all entities and is distinct from the term government.

Source: *adapted from ISEAL Alliance, Emerging Initiatives Module 4: Models of Governance, 2007*

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

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 in respect to its suitability for a particular purpose.

Source: *US Geological Survey, <http://ga.water.usgs.gov/edu/dictionary.html>*

**Water recycling:** is 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 diseases:** Water-related diseases include:

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

*Source: World Health Organization*

**Water risk:** The physical, regulatory and reputational water risks that an entity faces through its reliance on water in the production of goods and services.

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

**Water risk assessment:** A formal or informal evaluation that considers the physical, regulatory and reputational water risks that an entity faces through its reliance on water in the production of goods and services.

**Water stress:** occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.).

*Source: UNEP, Freshwater in Europe Glossary*

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

*Development Source: European Water Partnership, Draft Standard version 4.6, 2010*

**Water Roundtable:** The Water Roundtable is the multi-year, multi-stakeholder process of agreeing upon an International Water Stewardship Standard.

**Water Roundtable Coordinator:** The Water Roundtable will be coordinated by an individual, appointed by the AWS Board, who is charged with keeping the roundtable process moving forward and in line with ISEAL guidelines for creating a Standard. Responsibilities of the coordinator will include, but not be limited to, coordinating working groups, publicizing and handling logistics for meetings, serving as the primary contact for issues related to the AWS WRT, and maintaining content on the AWS WRT website. The AWS WRT Coordinator is a member of the AWS Secretariat and is assisted by the Assistant Water Roundtable Coordinator, who acts as her proxy in cases where she cannot be present.

**Water Stewardship:** Use of water that is socially beneficial, environmentally responsible and economically sustainable. Socially beneficial water use recognizes basic human needs and ensures long-term benefits (including economic benefits) for local people and society at large. Environmentally responsible water use maintains or improves biodiversity and ecological processes at the watershed level. Economically sustainable water use is secure, reliable and financially viable in the long term.

**Water Stewardship plan (synonymous with water stewardship policy):** An entity-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 and structure, and the planning and field operations in a manner consistent with the definition of water stewardship. Water Stewards may Implementers and/or Promoters of the AWS Standard.

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

*Source: Alliance for Water Stewardship, 2012, adapted from Water Stewardship Standard Draft 00, Water Stewardship Initiative June 2009*

**Watershed:** the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.

*Source: Alliance for Water Stewardship, 2012 adapted from European Water Partnership, Draft Standard version 4.6, 2010*

**Working Groups:** Working Groups will be made up of people, such as researchers and scientists, with expertise in a given sector or issue. They will be appointed by the ISDC (by consensus) and provide the ISDC with input on technical aspects of water stewardship. Roles of the groups can include delivering policy-neutral advice on the state of research, identifying significant gaps or areas of disagreement, recommending terms of reference for additional research needs, and developing a draft Standard.

## Appendix B: Regional Supplement

### Stakeholder Input : Appendix B – Regional Supplement

#### Background

One of the drivers for the creation of AWS was the work being undertaken in Australia and Europe to develop regional water stewardship standards, and recognition of the need for a consistent international approach to water stewardship. Since then, the two existing regional standard development processes (Australian and Europe) have continued and AWS Regional Initiatives established in Latin America and the Caribbean and North America. These, together with engagement with stakeholders in other regions have helped to inform the development of this first draft. Regional engagement and input is of utmost importance in the development of the Standard – after all, water is local (while at the same time being global)!

Similarly, despite its global cross-section of regional backgrounds, the ISDC also recognizes the need for regional-specific input into the development of the Standard. Accordingly, AWS will be working with stakeholders from around the world to convene meetings and gather feedback on how this draft meets the water stewardship needs in different regions. In so doing, the aim is to create global alignment while respecting regional differences.

#### Questions for Region-Specific Stakeholders

72. Are there any elements of the draft that need to be modified in order to reflect water stewardship issues in your region?
73. What region-specific water-related guidance would you recommend referencing alongside the AWS Standard?
74. How should this standard relate to regionally-specific water stewardship standards?

## Appendix C: Sectoral Supplement<sup>14</sup>

### Stakeholder Input : Appendix B – Regional Supplement

#### Background

In addition to regional modifications, AWS recognizes that different sectors use water in very different manners. Like with the issue of its regional representation, the ISDC recognizes the need for sector-specific input into the development of the Standard. Accordingly, the intention is to have those sectors who express interest to convene their own stakeholders to develop a proposed set of modifications which can then be reviewed by the larger, global stakeholder body. In so doing, the aim is to create global alignment while respecting sectoral differences.

#### Questions for Sector-Specific Stakeholders

75. Are there any elements of the draft that need to be modified in order to reflect water stewardship issues in your sector?
76. What sector-specific water-related guidance would you recommend referencing alongside the AWS Standard?

<sup>14</sup> Please see the General Industry Classification Standard for a full list of industry sectors.  
[http://www.msci.com/products/indices/sector/gics/gics\\_structure.html](http://www.msci.com/products/indices/sector/gics/gics_structure.html)

