



# STANDARD

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# European Water Stewardship (EWS)

## Standard document

### 0. Guidance on document

#### 0.1 Notes on use of language

- The standard does not adopt ISO's usage of the words 'shall' (for requirements) and 'should' (for recommendations). These contain ambiguities when used outside of a technical standards-specific context and are confusing for many non-English speakers. Instead the clauses of the standard are written in the indicative mood to indicate requirements. Thus when the standard says that 'x is the case', or that 'x has taken place' this is understood to indicate a requirement that must be (or has been) satisfied in order to demonstrate conformity with the standard (equivalent to the use of the word 'shall' in ISO standards). If 'x is not the case', or 'x has not taken place', then this would mean there is non-conformity with a requirement of the standard.
- For terms, definitions and abbreviations please refer to the adherent "Glossary" document. Words and abbreviations that can be found in the Glossary are underlined and marked with an \*.

#### 0.2 Guidance documents adherent to Standard

- Please refer to the Glossary and the Guideline document, with included annexes, to find more information on definitions, templates, formulas, measures, best management practices, and others to reach compliance with the referring indicators.

### 1. Introduction

#### 1.1 The European Water Stewardship\* (EWS)\* comprises:

- The European Water Stewardship (EWS) standard\*.
- The referring glossary and guideline, with included annexes.
- The EWS multi-site standard.
- The EWS group certification standard.
- The inspection and certification scheme.
- The communication guidelines.

#### 1.2 For whom is this standard applicable?

The EWS standard aims to be applicable to a broad range of water users and industries that may affect the availability and quality of water while still respecting the complexity of impacts linked to water use and therefore:

- Comprises environmental, social and economic aspects.
- Is valid on global scale but based on local assessment with focus on Europe\*.
- Is valid across all sectors.

### 2. Background

The European Water Stewardship has been developed within the stakeholder process coordinated by the European Water Partnership (EWP). The European Water Stewardship (EWS) operates within the context of EU Policy and will ultimately contribute to the current flagship activities of the European Commission to achieve "Resource Efficiency" and to prepare the "European Blueprint" for 2012.

#### 2.1 Objectives of European Water Stewardship

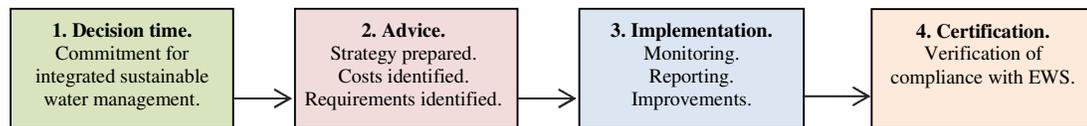
- To build positive incentives to promote a change in behavior and practices of water use, management and governance\*.
- To provide a tool for water users to demonstrate corporate responsibility.
- To provide a tool to achieve integrated sustainable water (resource) management.
- To optimize the use of water on operational and river basin basis.
- To prepare the private sector for the implementation of the European Water Framework Directive (WFD)\*.
- To support water users in general to communicate and report on their water use.
- To evaluate the use of water on a local and business basis.
- Third party verification of the water user's compliance.



### 3. Delivering the objectives

#### 3.1 Stages

Water using industries, be they very small farms or multi-national industries; have a very clear interest to minimize the use of natural resources and to optimize their resources efficiency. There are clear steps that will be taken prior to certification being possible, commercially viable or even desirable.



##### Step 1

The decision, not only to reduce water use, but to aim for an integrated sustainable water management, must be taken at the highest possible level of management as the investment can be high at the outset with a long period before returns on the investment are realized. For any size of business, the decision to reduce water AND to consider all other aspects of water use also demonstrates clear corporate social responsibility – the value of which must not be under-estimated.

##### Step 2

Technical advice can range from discussions with colleagues, observations of other practices, common sense, independent technical expertise or support through membership of an association or group. The important aspect is that a clear strategy is prepared and fully costed with benefits clearly identified.

##### Step 3

The EWS standard is implemented on-site and the compliance with the standard requirements is monitored and reported in the internal system plan. Points of improvement shall be identified and taken over in the management strategies.

##### Step 4

Certification is an independent verification that the water management system is compliant with EWS requirements. The decision to become certified must be taken for the correct reasons – Access to new markets, Corporate Responsibility or legally required etc. Certification can be performed as individual certification or as part of a multi-site or group scheme.

#### 3.2 Bronze, Silver, Gold status

The classification in bronze, silver and gold enables to visualize development in performance and provides incentives for upgrading. The classification is achieved if a production site has achieved compliance with ALL major requirements plus:

- >50% compliance with all minor requirements = **BRONZE**
- >70% compliance with all minor requirements = **SILVER**
- >90% compliance with all minor requirements = **GOLD**

### 4. The European Water Stewardship (EWS) Standard

The EWS Standard aims to give indicators for the whole water cycle: from extraction to re-allocation. The main aim is to map, grade and evaluate water management based on redesign, reuse, recycle and re-allocate measures.

This standard includes

- 4 principles\*, which outline the overarching aims of the EWS Standard, and associated criteria.
- The criteria\* are further divided into indicators which shall be used to evaluate compliance with the principles and criteria.
- Indicators\* are classified as a major indicator, a minor indicator or as a recommendation.
  - The major and minor indicators have to be complied with to achieve the referring objective.
  - The indicators classified as “recommendations” (“Rec.”) are non-obligatory.

#### 4.1 Non Compliance

- Non-compliance with an indicator that is shown as “major” will result in major non-conformity.
- Non-compliance with an indicator that is shown as “minor” will result in minor non-conformity.
- A certificate of compliance will only be awarded when all major indicators and 50% of all minor indicators have been met to the satisfaction of the certification body.
- Major non-conformities raised during a surveillance assessment must be dissolved, to the satisfaction of the certification body within 30 days. Failure to do so will result in the suspension of the certificate.

Failure to dissolve the major non-conformity after this suspension period will result in the withdrawal of the certificate and the requirement of a new main compliance assessment.

- Minor non-conformities must be addressed in a timely manner as determined by the certification body. Failure to do so will result in a minor non-conformity with the associated implications given in the referring certification scheme.

#### **4.2 (Non) applicability**

Applicability of the indicators is not related to size or kind of the production site unless stated otherwise.

#### **4.3 The audit process**

- Application form is completed.
- Offer is made.
- Offer is accepted and contracts signed.
- Client completes a system plan and prepares for the audit.
- Audit dates are agreed.
- Audit plan is sent to client.
- Audit is conducted on-site.
- Audit checklist and report is completed.
- The certification body reviews the documents and makes a certification decision.
- A certificate of compliance is awarded for a period of 3 years.
- Annual surveillance audits are conducted to ensure continual compliance

## **The European Water Stewardship (EWS) standard**

### **Principle 1. Achieve and maintain sustainable water abstraction in terms of water quantity.**

**Explanation:** Sustainable Water Management shall achieve and maintain sustainable water abstraction from all sources, and maintain or restore environmental flow\* regime in all river basins\* where it has a significant influence. Therefore, the abstraction and use of water from all sources shall be evaluated by the water steward\*.

#### **Criterion 1.1**

**The total and the net water abstraction shall be quantified and monitored by source.**

<b>Indicator</b>	
1.1.1 Major	<p><b>All sources used for water abstraction are documented (documentation regularly updated).</b></p> <ul style="list-style-type: none"> <li>• Sources with a (legal) <u>permit*</u>.</li> <li>• Sources without a (legal) permit (i.e. sources for which a permit is not necessary and unofficial sources).</li> </ul> <p><b>For example:</b></p> <p><b>Self-supply sources</b></p> <ul style="list-style-type: none"> <li>• <u>Groundwater*</u> (specify <u>renewable groundwater*</u> and <u>fossil water*</u>).</li> <li>• <u>Surface (fresh) water*</u> (including water from wetlands, rivers, lakes or <u>artificial*</u> and heavily modified surface water bodies).</li> </ul> <p><b>Alternative sources</b></p> <ul style="list-style-type: none"> <li>• Rainwater collection.</li> <li>• <u>Recycled water*</u>.</li> <li>• <u>Re-used water*</u>.</li> <li>• Desalinated water.</li> </ul> <p><b>From public/private water supplier (WS)</b></p> <ul style="list-style-type: none"> <li>• Municipal water (tap, drinking, supply water).</li> </ul> <p><b>Other</b></p>
1.1.2 Major	<p><b>The water volume abstracted from each source is quantified, monitored and reported.</b></p> <p><b>A general table is provided including:</b></p> <ul style="list-style-type: none"> <li>• Abstracted water (m<sup>3</sup>) per year per source.</li> <li>• Abstracted water (m<sup>3</sup>) per sensitive (=low availability season) period per source.</li> <li>• Abstracted water (m<sup>3</sup>) per month per source.</li> <li>• Water provided by a Water Supplier (WS) (m<sup>3</sup>) in relation to your total water abstraction (m<sup>3</sup>).</li> </ul> <p><b>The <u>water consumption*</u> per source (m<sup>3</sup>) is calculated: [Total water abstraction minus <u>water discharge*</u> for each source]</b></p>
1.1.3 Major	<p><b>Only applicable for irrigation: The water volume, used for irrigation, is quantified, monitored and reported.</b></p> <p><i>Specify:</i></p> <ul style="list-style-type: none"> <li>• Different irrigated areas or crops.</li> <li>• Water use on a daily and monthly basis.</li> </ul>

#### **Criterion 1.2**

**Impact\*** of water abstraction to the source shall be described and evaluated appropriate to the scale of the source, to the intensity of water management and to the uniqueness of the significantly affected sources\*.

*Out of scope:*

- Indirect water use for purchased electricity and energy production, e.g. hydropower (on hold).
- Purchased water\* (not included in assessment but should be quantitatively monitored): Water in products and material for production (ref. Criteria 4.2).

<b>Indicator</b>	
1.2.1 Minor	<p><b>All water sources are classified in terms of their <u>sensitivity*</u> according to one or more of the following criteria:</b></p> <ul style="list-style-type: none"> <li>• Abstractions from water bodies that are recognized by professionals to be particularly sensitive due to their relative size [m<sup>2</sup>].</li> <li>• Whether or not the source is designated as a <u>protected area*</u> (nationally and/or internationally) regardless the amount of abstraction.</li> <li>• Groundwater is considered as <u>sensitive source*</u> per se.</li> </ul>
1.2.2 Minor	<p><b>For each <u>sensitive water source*</u> (as identified in 1.2.1) the <u>water steward*</u>:</b></p> <ol style="list-style-type: none"> <li>1) Defines whether the maximum abstraction rate coincides with periods of <u>water stress*</u>.</li> <li>2) Relates the <u>water discharge*</u> per periods of water stress.</li> </ol> <p><i>A suitable and meaningful time period of water stress is defined.</i></p>

<p>1.2.3 Major</p>	<p><b>[Only applicable for sources with <u>permits</u>* that do not disclose a maximum abstraction rate and for sources without abstraction permit]</b></p> <p><b>The <u>Water Stress Index (WSI)</u>* of each source is calculated according to:</b></p> <ul style="list-style-type: none"> <li>• WSI 1 (%) = collective water abstraction in relation to the <u>available water</u>* per source (with the water abstraction volume per source in [m<sup>3</sup>/month or <u>sensitive period</u>*) and [average m<sup>3</sup>/year]).</li> <li>• WSI 2 (%) = collective <u>water consumption</u>* in relation to the <u>available water</u>* per source (with the water consumption volume per source in [m<sup>3</sup>/month or sensitive period] and [average m<sup>3</sup>/year]).</li> </ul> <p>Consideration is made whether the operation is a:</p> <ul style="list-style-type: none"> <li>• Major abstractor: Water withdrawals that account for an average of 5% or more of the renewable freshwater resources, or</li> <li>• Minor abstractor: Water withdrawals that account for an average of less than 5% of the renewable freshwater resources.</li> </ul>
<p>1.2.4 Major</p>	<p><b>[Only applicable for sources with permits that do not disclose a maximum abstraction rate and for sources without abstraction permit]</b></p> <p><b>The <u>water discharge</u>* of the production site, is calculated and evaluated by the operational Water Discharge Index:</b></p> <p>The ratio in % of [<u>Discharged water</u>* (m<sup>3</sup>) / total water abstraction by the operation (m<sup>3</sup>)].</p> <p><b>Type of contribution:</b></p> <ul style="list-style-type: none"> <li>• The water steward is a “minor contributor” when: <u>Discharged water</u>* accounts for only 20-40% of the water abstracted.</li> <li>• The water steward is a “major contributor” when: <u>Discharged water</u> accounts for 40-60% of the water abstracted.</li> </ul> <p><b>The water steward defines:</b></p> <ul style="list-style-type: none"> <li>• For minor contributors only: Whether they are performing research or implementing a water-saving technology to reduce water consumption (since the water consumption is high compared to the water discharged).</li> <li>• For minor and major contributors: Whether the discharged water <ul style="list-style-type: none"> <li>- Is treated or untreated.</li> <li>- Has potential of downstream reuse (good water quality).</li> <li>- Returns to the same water source from where it has been abstracted.</li> </ul> </li> </ul>
<p>1.2.5 Major</p>	<p><b>[Only applicable for sources with permits that do not disclose a maximum abstraction rate and for sources without abstraction permit]</b></p> <p><b>The <u>impact</u>* of abstraction on WATER VOLUME and <u>FLOW RATE</u>* is described by source.</b></p> <p>This description includes:</p> <ul style="list-style-type: none"> <li>• The calculation of the WSI and the WDI (as defined above).</li> <li>• A calculation of the total volume abstracted from sources without max abstraction rate in relation to the total water abstracted by the production site [m<sup>3</sup>/year].</li> <li>• Impacts on characteristics on the source itself (e.g. deterioration of quantity, seawater intrusion, etc.).</li> <li>• <u>Environmental impact</u>* (e.g. biodiversity, protected areas, desertification, changes in river morphology, etc.).</li> <li>• Socio-economic impact (e.g. water shortage, interruptions, restrictions, imports, etc.) and the regional population potentially affected downstream by water abstraction (number of persons).</li> </ul>
<p>1.2.6 Minor</p>	<p><b>Action is taken to mitigate actual and potential <u>impacts</u>* caused by water abstraction (as identified in indicators 1.2.1 – 1.2.5).</b></p> <p>Water stress impact indicators are among others:</p> <ul style="list-style-type: none"> <li>• Reduction of <u>environmental flow</u>*.</li> <li>• Decline of groundwater level.</li> <li>• Reduction in reservoir inflow/decline of reservoir storage.</li> <li>• Seawater intrusion – aquifer salinisation.</li> <li>• Reduction in <u>available water</u>*.</li> <li>• Loss of wetlands.</li> </ul>
<p>1.2.7 Major &gt; 50% Rec. &lt; 50%</p>	<p><b>The water user evaluates the performance of its external water supplier (WS) in terms of Sustainable Water Management.</b></p> <p>Indication is given whether the volume of water supply, provided by a water treatment plant, is more than 50% of the water stewards' total water use [m<sup>3</sup>].</p>

**Principle 2. Ensure the achievement and maintenance of good water status\* in terms of chemical quality and biological elements.**

**Explanation:** Sustainable Water Management shall ensure the achievement and maintenance of the good water status, meeting legal and/or agreed quality standards in all affected river basins\*. Therefore, the quality of all effluents\* shall be evaluated by the water manager.

**Criterion 2.1**

**The total effluent\* quality shall be determined, monitored and documented.**

	<b>Indicator</b>
2.1.1 Major	<p><b>1) There is a complete and up-to-date inventory of all applied substances, which can become potential and actual <u>pollutants</u>*.</b></p> <p><i>A general table shall be provided which includes the following information:</i></p> <ul style="list-style-type: none"> <li>• Substances and other physical pollutants used or produced by the production side.</li> <li>• Active substance / ingredient of the pollutant.</li> <li>• Classification of the pollutant according to following schemes:               <ul style="list-style-type: none"> <li>- Classified as <u>hazardous</u>* to the Aquatic Environment (R50, R51, R53: Risk Phrases are defined in Annex III of European Union Directive 67/548/EEC: very toxic, toxic, long term <u>effects</u>*).</li> <li>- Considered a <u>main pollutant</u>* according to the EC Water Framework Directive.</li> <li>- Considered a <u>priority substance</u>* or specific pollutant in river basin according to the EC Water Framework Directive.</li> </ul> </li> <li>• Whether the pollutant is a legally regulated.</li> <li>• Material safety data sheet (MSDS) references.</li> </ul> <p><b>2) An up-to-date and complete report of the applied substances is in place indicating the frequency and amount/volume applied.</b></p> <p><i>For all potential pollutants the water steward reports on the:</i></p> <ul style="list-style-type: none"> <li>• Frequency of applications and the quantity or volume.</li> </ul>
2.1.2 Major	<p><b>For each of the potentially polluting substances, the type of <u>pollution</u>* is described and potential <u>destinations</u>* are identified.</b></p> <p><i>For all potential pollutants the water steward reports on the:</i></p> <ul style="list-style-type: none"> <li>• Potential type and source of pollution; i.e. <u>point pollution</u>* (e.g. farmyard runoff, tank seepage), <u>diffuse pollution</u>* (e.g. surface <u>runoff</u>* or <u>drainage</u>* losses from broadcast fertilizer or pesticide application to fields) or wastewater transport (e.g. via truck).</li> <li>• Potential <u>destinations</u>*: Oceans, coastal areas, groundwater, lakes, etc.</li> </ul>
2.1.3 Major	<p><b>[Only applicable for irrigation with recycled, rain-harvested, desalinated or grey water]</b></p> <p><b>Analyze, monitor and report on the quality of the irrigation water.</b></p> <p><i>The water steward reports on water analysis for:</i></p> <ul style="list-style-type: none"> <li>• Nutrient concentration.</li> <li>• Salinity.</li> <li>• Pathogens.</li> <li>• Other.</li> </ul>
2.1.4 Major	<p><b>1) The quality of the <u>effluent</u>* discharged by the production site is analysed, monitored and reported.</b></p> <p><i>Water discharge may occur from:</i></p> <ul style="list-style-type: none"> <li>• Waste water treatment plants.</li> <li>• Sewers into rivers, oceans, lakes, wetlands.</li> <li>• Other piped outlets.</li> </ul> <p><i>The water steward reports on the effluent water (discharged wastewater) analysis including type and amount of:</i></p> <ul style="list-style-type: none"> <li>• <u>Hazardous substances</u>*.</li> <li>• Nutrients.</li> <li>• <u>Pollutants</u>*.</li> <li>• Thermal freight.</li> </ul> <p><i>Pollutants are classified according to:</i></p> <ul style="list-style-type: none"> <li>• Biological pollutants (e.g. hazardous bacteria)</li> <li>• Chemical pollutants (e.g. pesticides, heavy metals, pharmaceutical products, etc.).</li> </ul> <p><b>2) Only when required: <u>Statutory monitoring reports</u>* are completed.</b></p>

2.1.5 Major	<p><b>After analysis of the actual <u>effluents</u><sup>*</sup>, the <u>main pollutants</u><sup>*</sup> and <u>priority substances</u><sup>*</sup> (as identified in 2.1.1) are defined.</b></p> <p>The water steward identifies, indicates and if possible quantifies:</p> <ul style="list-style-type: none"> <li>• The substances` concentration and the load (kg/year) in the effluent.</li> <li>• Whether it is considered a potential pollutant: <ul style="list-style-type: none"> <li>- Considered a <u>main pollutant</u><sup>*</sup> according to the EC Water Framework Directive.</li> <li>- Considered a <u>priority substance</u><sup>*</sup> or specific pollutant in the <u>river basin</u><sup>*</sup>.</li> </ul> </li> <li>• For regulated inputs: Provide pollutant data and permits/ requirements (Pollutant Standard Limits).</li> </ul>
2.1.6 Rec.	<p><b>The <u>eutrophication</u><sup>*</sup> potential is identified and evaluated.</b></p> <ul style="list-style-type: none"> <li>• The inland water eutrophication potential is identified, estimated and - if feasible - calculated. The eutrophication potential is calculated through the conversion factor of phosphorous and nitrogen compounds (waste water discharges and air emissions of NOx and NH<sub>3</sub>) into phosphorous equivalents.</li> <li>• The water steward defines and quantifies potential losses (wastewater discharge, <u>leaching</u><sup>*</sup>, <u>run-off</u><sup>*</sup>, air emissions) of substances with eutrophication potential (i.e. with nitrogen (N) and phosphorous (P) compounds).</li> </ul> <p>Measurements of N and P include:</p> <ul style="list-style-type: none"> <li>- Concentration of N and P in the <u>effluent</u><sup>*</sup>.</li> <li>- <u>BOD</u><sup>*</sup>/<u>DO</u><sup>*</sup> in inland waters.</li> <li>- Concentration of N and P in inland water bodies that are directly linked to the production sites` <u>water use</u><sup>*</sup>.</li> </ul> <p>For agriculture: Nutrient balance from fertilizer use &amp; livestock conditions for each field plot is available.</p>

## Criterion 2.2

**Destinations<sup>\*</sup> that are affected by the production sites` effluents shall be identified and described. Measures shall be set in place to mitigate these impacts<sup>\*</sup>.**

	Indicator
2.2.1 Major	<p><b><u>High risk areas</u><sup>*</sup> are identified at the production site and indicated on maps.</b></p> <p>The water steward identifies and characterizes areas which pose a high risk for water pollution.</p> <p><u>High risk</u> areas are characterized according to their risk for pollution of a water body via <u>leaching</u><sup>*</sup>, <u>run-off</u><sup>*</sup> or <u>drainage</u><sup>*</sup> (e.g. regarding soil texture, organic carbon content, groundwater depth, subsurface material, slope, etc.).</p> <p><i>For agriculture and golf:</i></p> <ul style="list-style-type: none"> <li>• The land-sensitivity index [%] is calculated: High risk area under production (ha) / total cultivated area (ha).</li> <li>• The land-water-protection index [%] is calculated: Cultivated high risk area under water protection measures [ha] (e.g. river-bank strips, green-belt setting, wind-protection, conservation tillage) in relation to total cultivated area of the organization / farm classified as high risk area [ha].</li> </ul>
2.2.2 Major	<p><b>All <u>destinations</u><sup>*</sup> which are potentially affected by the production sites` pollutants (e.g. by <u>discharging</u>, <u>leaching</u><sup>*</sup> or <u>drainage</u><sup>*</sup> water, or by <u>erosion</u><sup>*</sup> and <u>run-off</u><sup>*</sup> are compiled in a list.</b></p> <p>Potential destinations are:</p> <ul style="list-style-type: none"> <li>• Water bodies: <ul style="list-style-type: none"> <li>- Groundwater.</li> <li>- Lakes, rivers (surface freshwater).</li> <li>- Transitional waters.</li> <li>- Coastal waters, sea.</li> <li>- Others</li> </ul> </li> <li>• Water related habitats: <ul style="list-style-type: none"> <li>- <u>Wetlands</u><sup>*</sup>.</li> <li>- Riparian zones.</li> <li>- Others</li> </ul> </li> </ul>
2.2.3 Major	<p><b>The list of potential destinations (as defined in 2.2.2.) has to disclose if a destination is already classified by authorities as a <u>protected</u><sup>*</sup> or <u>sensitive area</u><sup>*</sup>.</b></p> <p>Information shall be added on:</p> <ul style="list-style-type: none"> <li>• Whether the water bodies are recognized by appropriate professionals (e.g.; public authorities, scientific studies) to be particularly sensitive due to their relative size, function, or status as a rare, threatened, or endangered system (or support endangered species of plant or animal).</li> <li>• Any discharge/run-off/leaching to a <u>Ramsar</u><sup>*</sup>-listed <u>wetland</u><sup>*</sup> or any other nationally or internationally proclaimed conservation area regardless of the rate of discharge.</li> </ul>
2.2.4 Major	<p><b>With reference to 2.2.2 and 2.2.3: The impact on the affected <u>destinations</u><sup>*</sup> is assessed and described.</b></p> <p>Information is added on:</p> <ul style="list-style-type: none"> <li>• Biodiversity value of the destination (e.g. species diversity and endemism, number of protected species).</li> <li>• <u>Environmental impact</u><sup>*</sup> from pollutants to water (e.g. biodiversity, protected areas, etc.).</li> <li>• Socio-economic impact.</li> <li>• Regional population (negatively) affected down-stream by effluent water.</li> </ul>

<p>2.2.5 Minor</p>	<p><b>With reference to indicators 2.2.1 – 2.2.4: Action is taken to mitigate possible <u>impacts</u>*, including:</b></p> <p>1) Proper planning, implementation and monitoring of management measures to ensure the water quality protection and enhancement.</p> <p>2) An obligatory set of appropriate <u>Best Management Practices</u>* (BMPs*) is provided to prevent eutrophication.</p> <p><u>For agriculture and golf:</u></p> <p>Mitigate impacts through application of pesticides, fertilizers or other chemicals (according to BMPs), targeted lake and wetland management and management of storm water runoff.</p> <p>Information is included regarding:</p> <ul style="list-style-type: none"> <li>• Integrated pest, water and nutrient management.</li> <li>• Buffer strips or Riparian zones along surface water.</li> <li>• Aeration of lakes or retention basins.</li> <li>• Redirection of storm water from runoff to areas where infiltration is possible, and avoid off-site flows.</li> </ul>
<p>2.2.6 Major</p>	<p><b>Only applicable when the production site discharges to external waste water treatment plants (WWTP): The water steward monitors and reports on the production site's contribution to the WWTP.</b></p> <p>The water steward indicates whether the contribution to the WWTP is higher than 50% of the total waste water volume treated in the WWTP [m<sup>3</sup>].</p>

**Criterion 2.3**

**Local issues of water quality that are potentially influenced by the water use\* shall be pointed out clearly in qualitative and - if possible - quantitative terms.**

	<b>Indicator</b>
<p>2.3.1 Rec.</p>	<p><b>Local issues caused by non-chemical pollution are identified, quantified and reported.</b></p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <li>• Sediments.</li> <li>• Odour.</li> <li>• Foam.</li> <li>• Flooding.</li> <li>• Others.</li> </ul>

**Principle 3. Restore and preserve water-cycle related High Conservation Value (HCV) areas\***.

**Explanation:** Sustainable Water Management shall restore and conserve biological diversity and its other associated values in areas that are directly linked to its water-cycle.

**Criterion 3.1**

**Impact\*** on water status and ecological processes, outside the natural range of variation, in HCV areas shall be identified and evaluated.

	<b>Indicator</b>
3.1.1 Major	<b>HCV areas are identified, described and mapped within a radius of 25 km.</b> <i>Potential HCV areas of the production site and surroundings (e.g., wetlands, lakes, riparian zones, groundwater...)</i>
3.1.2 Minor	<b>Impacts on the water status of HCV areas caused by the production sites' activities or services, are identified, described and quantified.</b> <i>Examples:</i> <ul style="list-style-type: none"><li>• Changes in quantitative or qualitative water status, which may impact on ecological processes outside the natural range of variation (e.g. changes in salinity, falling groundwater level).</li><li>• Direct interference in water cycle-related ecosystems (e.g. transport infrastructure, cropland, dams, drainage).</li></ul>
3.1.3 Minor	<b>Action is taken to mitigate the impacts described in indicator 3.1.2.</b>
3.1.4 Rec.	<b>The <u>water steward</u>* identifies, monitors and reports actions and measures taken, with regard to <u>wetland</u>* habitat management.</b> <i>Referring to areas and wetlands:</i> <ul style="list-style-type: none"><li>• Restored: Areas that were used during or affected by operational activities, and where remediation measures have either restored the environment to its original state or to a state where it is a healthy and functioning ecosystem.</li><li>• Protected: Areas that are protected from any harm during operational activities, and the environment remains in its original state with a healthy functioning ecosystem.</li></ul> <i>Actions and measures are described, including:</i> <ul style="list-style-type: none"><li>• Size and location of all protected areas and/or restored areas (in ha).</li><li>• Success of the restoration measure was/is approved by independent external experts.</li><li>• Description of partnerships with third parties to protect or restore habitat areas.</li><li>• Implemented restoration or protection measures.</li><li>• Other.</li></ul>

**Criterion 3.2**

**Impact on HCV areas, other than ecological values, shall be identified and evaluated.**

	<b>Indicator</b>
3.2.1 Minor	<b>The impact on other applicable HCV areas are identified and described.</b> <i>Example:</i> <i>Restricted access to recreation zones, or zones with religious or other social or cultural value.</i>
3.2.2 Minor	<b>Action is taken to mitigate the impacts described in indicator 3.2.1.</b>

**Principle 4. Achieve equitable and transparent water governance\*.**

**Explanation:** The water steward shall achieve an equitable system for its water use\*, make its Water Stewardship\* policy publicly available and raise awareness for Water Stewardship by pro-active measures. Therefore, the water user shall establish, implement and maintain procedures in the management plan and operational practice on the following points.

*This principle refers explicitly to a 'continuous improvement'\* approach rather than 'performance level' approach in relation to river basin sustainability, unless additional minimum performance requirements are specified.*

**Criterion 4.1**

**The water management shall ensure compliance with all legal requirements linked to water use.**

	<b>Indicator</b>
4.1.1 Major	<p><b>1) A person or department is identified who ensures compliance with legal requirements linked to water.</b></p> <p><b>2) Procedures are established, implemented and monitored which ensure that legal aspects and compliance with the law of the production sites' water abstraction, reuse or discharge are entirely disclosed and kept up-to-date.</b></p> <p><i>Example:</i></p> <ul style="list-style-type: none"> <li>• Abstraction, recycling, discharge certificates.</li> <li>• Water permits.</li> </ul>

**Criterion 4.2**

**Water management in the supply chain shall be evaluated on long term. The purchase of products and material from water sustainable suppliers shall be achieved over time according to the possibilities of the organization.**

Explanation:

For water stewards, a 3-step approach is recommended:

1. An assessment is made of the water management of the production site (in-gate).
2. Suppliers are addressed and informed to raise the awareness.
3. A written approval / certificate is required from suppliers which refers to the implementation of a Water Stewardship system.

**For agriculture: This indicator is only applicable for farms with animal production (Explanation: As first part of the supply-chain, farmers have no general obligation to prove the water in products and materials used for production)**

	<b>Indicator</b>
4.2.1 Rec.	<p><b>The water steward classifies its supply chain of products and materials according to:</b></p> <p><b>1) Location</b> <i>A list is provided indicating which suppliers are situated in water stressed river basin.</i></p> <p><b>2) Transparency on <u>water use</u>*</b> <i>The suppliers are classified according to:</i></p> <ol style="list-style-type: none"> <li>a) <i>Their possession of an approved / certified water management.</i></li> <li>b) <i>Their possession of a water management system with internal audit.</i></li> <li>c) <i>Having no transparency on water management.</i></li> </ol> <p><i>The water steward describes whether:</i></p> <ul style="list-style-type: none"> <li>• <i>Suppliers are aware of the sustainability of their water management.</i></li> <li>• <i>How the suppliers prove the sustainability of their water management.</i></li> </ul>
4.2.2 Rec.	<p><b>The water steward describes whether its suppliers are certified according to a Water Stewardship standard and whether there are referring certificates available.</b></p> <p><i>The Stewardship supply chain index is calculated:</i> = Amount of Stewardship-certified suppliers in relation to the total number of suppliers [% of number of suppliers and % of weight of products purchased].</p>



<b>Criterion 4.3</b> <b>Water use shall be managed in an integrated approach taking the management of other resources into account.</b>	
<b>Indicator</b>	
4.3.1 Major	<p><b>The (quantitative) relation of water and energy use is identified and optimized.</b></p> <p><i>The decline/increase in energy use, caused by an x-fold decrease of the water use, is identified.</i></p> <ul style="list-style-type: none"> <li>• <i>Example: When the water use is decreased by 2-fold, the energy use decreases by 1.2-fold due to declined need for machinery.</i></li> </ul> <p><i>An integrated water and energy management plan is envisaged being available, implemented and monitored.</i></p> <ul style="list-style-type: none"> <li>• <i>The measures taken to optimise the water and energy use are listed.</i></li> <li>• <i>The management goals for integrated resources management are described.</i></li> </ul>
4.3.2 Minor	<p><b>Only applicable for irrigation: The energy input for irrigation activities is documented and optimized.</b></p> <p><i>Documentation on energy needed for irrigation (in kJ or litres of gasoline/m<sup>3</sup>) is provided.</i></p>
4.3.3 Minor	<p><b>The (quantitative) relation of water and other resources than energy is identified and optimized.</b></p> <p><i>Applied resources in the production process (e.g. water, soil, chemicals, fertilizers, etc.) can be used more efficiently when the relation between the different resources is optimised.</i></p> <p><i>The results of an integrated management of water and other resources are evaluated and reported.</i></p> <p><i>A list is provided disclosing the measures which are in place to achieve sustainable integrative management of resources in relation with water.</i></p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <li>• <i>Increasing soil organic matter can reduce the water volume for irrigation.</i></li> <li>• <i>Reducing water volumes can result in an increased need for cleaning agents.</i></li> </ul>

<b>Criterion 4.4</b> <b>Efficiency of <u>water consumption</u>* shall be increased by water re-cycling, higher water savings and the reduction of <u>water losses</u>*.</b>	
<ul style="list-style-type: none"> <li>• <i>Out of scope: Water in products and material for production (ref. Criteria 4.2), storage on site and diffuse water losses.</i></li> </ul>	
<b>Indicator</b>	
4.4.1 Minor	<p><b>Recycling is included in the water management strategy and the volume of <u>recycled water</u>* is monitored.</b></p> <ul style="list-style-type: none"> <li>• <i>The total volume of water recycled by the production site is calculated in [m<sup>3</sup>/year].</i> <i>Example: The production cycle requires 20 m<sup>3</sup> of water per cycle; the site withdraws 20 m<sup>3</sup> of water for one production process cycle and then reuses it for an additional three cycles. The total volume of water recycled for that process is 60 m<sup>3</sup>.</i></li> <li>• <i>The total volume of water recycled by the site in [m<sup>3</sup>/year] is calculated in relation to total water consumption [m<sup>3</sup>/year].</i></li> <li>• <i>In case that water is recycled more than one time: The "substitution value" is calculated: = Volume of recycled water that is satisfied by recycled water rather than further water abstractions.</i></li> </ul> <p><i>Examples of recycling types:</i></p> <ul style="list-style-type: none"> <li>- <i>Wastewater recycled back in the same process or higher use of recycled water in the process cycle.</i></li> <li>- <i>Wastewater recycled in a different process, but within the same facility.</i></li> <li>- <i>Wastewater re-used at another of the reporting organization's facilities or a third party (by agreement).</i></li> </ul>
4.4.2 Major	<p><b>Water losses are identified. Type and <u>destination</u>* of losses are described.</b></p> <p><b>Examples for water losses:</b></p> <p><i>Evaporated water during production processes, classified according to:</i></p> <ul style="list-style-type: none"> <li>• <i>Process water.</i></li> <li>• <i>Cooling water.</i></li> <li>• <i>Irrigation water.</i></li> <li>• <i>Water used for fertigation.</i></li> <li>• <i>Transport/ distribution.</i></li> <li>• <i>Other.</i></li> </ul> <p><i>Water otherwise in production defined as:</i></p> <ul style="list-style-type: none"> <li>• <i>Lost from processing.</i></li> <li>• <i>Lost from cooling.</i></li> <li>• <i>Lost from irrigation.</i></li> <li>• <i>Lost from other processes.</i></li> <li>• <i>Leakage, seepage, bad infrastructure.</i></li> </ul> <p><b>Type and destination of loss:</b></p> <ul style="list-style-type: none"> <li>• <i>Controlled water loss (to air, to soil, to water body).</i></li> <li>• <i>Un-controlled water loss (to any destination).</i></li> </ul> <p><i>The destinations and the local environment affected by un-controlled water losses are identified.</i></p>

4.4.3 Major	<p><b>Only applicable for irrigation: The irrigation system is described, well maintained and optimized to different crops and climatic and on-site conditions.</b></p> <p><i>The water steward describes:</i></p> <ul style="list-style-type: none"> <li>• The type of installation, control system and monitoring system.</li> <li>• The responsible person for maintenance of the irrigation system.</li> <li>• The frequency of control and maintenance.</li> <li>• The availability of spare parts and technical instructions to ensure the system maintenance.</li> <li>• The irrigation schedule and the crucial crops, areas and local sensitive periods (e.g. with insufficient rainfall or extreme temperatures) for irrigation.</li> </ul>
4.4.4 Major	<p><b>1) A strategy is in place and described to achieve optimized water efficiency.</b></p> <p><i>Planning, implementation and monitoring of corrective measures and actions are described.</i></p> <p><b>2) The water steward describes the use of water that has been saved by increasing efficiency and reducing losses.</b></p> <p><i>Possibilities are:</i></p> <ul style="list-style-type: none"> <li>• Reduce abstraction from water sources.</li> <li>• Using the "saved water volume" to increase production.</li> <li>• Other purposes.</li> </ul>
4.4.5 Minor	<p><b>Only applicable for golf courses: Optimal water use efficiency on the golf course is ensured by golf course planning, design and maintenance.</b></p> <p><i>Information is added on:</i></p> <ul style="list-style-type: none"> <li>• The use of the best adapted turf grass species for your climatic region and native vegetation of the region.</li> <li>• Maximizing nutrient availability and microbiological activity under the local soil conditions.</li> <li>• Maintaining adequate soil potassium (K) levels and avoiding excessive nitrogen (N) levels.</li> </ul>
4.4.6 Minor	<p><b>Water consumption per unit of product is quantified.</b></p> <p><i>The following productivity parameters are calculated:</i></p> <ul style="list-style-type: none"> <li>• Total water use per unit of product [<math>m^3/kg</math> product or per ha].</li> <li>• Total water consumption (evaporation and other losses) per unit of product or production area [<math>m^3/kg</math> product or per ha].</li> </ul>

#### Criterion 4.5

**Sustainable Water Management shall be achieved by internal and external transparency and raising awareness.**

	Indicator
4.5.1 Major  SMEs Minor	<p><b>1) An exhaustive water resources management strategy, which covers all relevant aspects of the operational water use, is established, implemented and monitored.</b></p> <p><i>This strategy discloses:</i></p> <ul style="list-style-type: none"> <li>• Risk assessment for water use.</li> <li>• Preventive measures to mitigate impacts of water use.</li> <li>• Water saving devices and potential.</li> <li>• New metering systems installation.</li> <li>• Leakage management.</li> <li>• Strategy for water management in the next three years.</li> <li>• Coverage of all 4 EWS principles.</li> <li>• Other.</li> </ul> <p><b>2) A person or department is identified who ensures the implementation of the water resources management strategy.</b></p> <p><i>This includes:</i></p> <ul style="list-style-type: none"> <li>• Frequency and method of monitoring.</li> <li>• Report and follow up on outcomes of monitoring.</li> <li>• Their mandate to influence management practices.</li> </ul>
4.5.2 Minor	<p><b>Internal transparency: Sustainable water management is disseminated within the operation.</b></p> <p><i>For internal communication the water steward:</i></p> <ul style="list-style-type: none"> <li>• Establishes a communication on Water Stewardship and distributes it to all persons working for it or on its behalf.</li> <li>• Identifies training needs regarding the implementation of its Water Stewardship system.</li> <li>• Provides training or takes other action to meet these needs, and maintains associated records.</li> <li>• Describes sanctions in case of non-compliance, or awards schemes to further improve sustainable water management.</li> </ul>

4.5.3 Minor	<p><b>External transparency:</b></p> <p><b>1) The water management is publically available for customers, the public and authorities, e.g. by a water report.</b></p> <p><i>In case there is no public water report, the operational water management is disclosed in an equivalent manner reporting on but not exclusively:</i></p> <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> <p><b>2) A person or department is identified who participates and reports on River Basin Committee activities.</b></p> <p><i>Participation may be performed by:</i></p> <ul style="list-style-type: none"> <li>• A person designated by the organization, or</li> <li>• By a procurator (e.g. a representative of a sector's association).</li> </ul>
4.5.4 Rec.	<b>Campaigns or partnerships to inform stakeholders on water topics are described and implemented.</b>
4.5.5 Major	<p><b>Management of incidents:</b></p> <p><b>1) Procedures are established, implemented and monitored to respond to accidents, security incidents, emergency situations, disasters and the like.</b></p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <li>• Leak of an oil tank, fire, long term drought, storm, explosion, ...</li> </ul> <p><b>2) The impacts of such an occurrence to the employees, the regional population and communities are described or estimated.</b></p>
4.5.6 Major	<p><b>Only applicable for irrigation: Measures or facilities to deal with unforeseen climatic conditions and system breakdown are implemented and monitored.</b></p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <li>• The instructions of dealing with system breakdown.</li> <li>• The availability of retention basins to store rainwater for later use.</li> <li>• Long-term drought in water stress periods.</li> </ul>

#### Criterion 4.6

**Continuous improvement\* of Sustainable Water Management shall be achieved on operational and River Basin level by implementation of BMPs\* and by innovation and development on long term.**

	<b>Indicator</b>
4.6.1 Major	<p><b>Best Management Practices* (BMPs*) are in place and integrated in a water resource management strategy.</b></p> <p><i>The water steward identifies and reports on applicable Best Management Practice systems for the production site:</i></p> <ul style="list-style-type: none"> <li>• A list is in place that discloses Best Management Practices and environmental management systems that are available at European, national and local level referring to parts of the operational water management (e.g. ISO 14001, BREF, others).</li> <li>• The number and type of Best Management Practices in place are described.</li> </ul>
4.6.2 Major	<p><b>The implementation procedures and the evaluation of BMPs are described.</b></p> <p><i>The implemented Best Management Practices are approved by:</i></p> <ul style="list-style-type: none"> <li>• An internal audit.</li> <li>• A third party certification.</li> <li>• Other.</li> </ul>
4.6.3 Major	<p><b>[Only applicable for organizations with no recognized BMPs in place]</b></p> <p><b>The water steward identifies him/herself appropriate BMPs and describes their implementation.</b></p> <p><i>Referring to:</i></p> <ul style="list-style-type: none"> <li>• Technology and management adoptions.</li> <li>• Improvement options.</li> <li>• Codes of conduct.</li> <li>• Other.</li> </ul> <p><i>The number and type of the referring technical measures, that are implemented for improvement, are reported and classified by field of application as follows:</i></p> <ul style="list-style-type: none"> <li>• Water discharge: connection to sewage or other adequate solution (e.g. local treatment).</li> <li>• Water use in production: replacement of potential hazardous substances.</li> <li>• Run-off from site.</li> <li>• Other.</li> </ul>

4.6.4 Rec.	<p><b>The water steward implements and documents innovative measures to improve the sustainability of the internal and the river basin water management.</b></p> <p><i>Innovations may be:</i></p> <ul style="list-style-type: none"> <li>• At technical level (e.g. improving production processes, improving irrigation techniques).</li> <li>• At product level (changing/ adapting the product range or the farming systems/cultivated crops).</li> <li>• At research / piloting level (e.g. in product development or with pilot testing the Stewardship scheme).</li> </ul> <p><i>Size and nature of innovations may be described by:</i></p> <ul style="list-style-type: none"> <li>• Funds rose for innovation/investigation/development- projects.</li> <li>• Total budget in innovation/investigation/development- projects.</li> <li>• Strategy plan to increase sustainability of water use (by new techniques, new products etc.).</li> </ul>
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#### Criterion 4.7

**Transparency on economic aspects of water management shall be ensured.**

	<b>Indicator</b>
4.7.1 Minor	<p><b>Investments made for maintenance and improvement of the water management are fully reported.</b></p> <p><i>The report is classified in:</i></p> <ul style="list-style-type: none"> <li>• Capital investment, granting, loans and insurance services including investments on all criteria listed in this document.</li> <li>• Other related costs (e.g. transaction costs),</li> <li>• Level of cost-recovery including investments on all criteria listed in this document, and revenue generation.</li> </ul> <p><i>Size and nature of investment are described by:</i></p> <ul style="list-style-type: none"> <li>• Percentage of investment in SWM in relation to total investments in water management (€).</li> <li>• Investments and subsidies in water saving programs and measures.</li> <li>• Amount of investments on long term water supply infrastructures: reservoirs, production process innovative system, leakage management, waste water treatment.</li> <li>• Environmental charges as percentage of water tariff.</li> <li>• Total costs (relater to water spent and SWM) vs. revenues.</li> </ul>
4.7.2 Rec.	<p><b>An environmental cost analysis is in place:</b></p> <p><i>This includes prevention and environmental management costs based on expenditures related to the following items:</i></p> <ul style="list-style-type: none"> <li>• Personnel employed for education and training.</li> <li>• External services for environmental management.</li> <li>• External certification of management systems.</li> <li>• Personnel for general environmental management activities.</li> <li>• Research and development.</li> <li>• Extra expenditures to install cleaner technologies (e.g. additional cost beyond standard technologies).</li> <li>• Extra expenditures on "blue" purchases.</li> <li>• Investments in water saving programmes and measures.</li> <li>• Other environmental management costs.</li> <li>• Environmental charges as percentage of water tariff.</li> </ul> <p><i>As well as costs related to wastewater disposal, effluents* treatment, and remediation as there are:</i></p> <ul style="list-style-type: none"> <li>• Treatment and disposal of waste water.</li> <li>• Treatment of effluents (e.g. expenditures for filters, agents).</li> <li>• Expenditures for the purchase and use of water-management related certificates and permits.</li> <li>• Depreciation of related equipment, maintenance, and operating material and services, and related personnel costs.</li> <li>• Insurance for environmental liability.</li> <li>• Clean-up costs, including costs for remediation of losses as reported in 4.4.2.</li> </ul>
4.7.3 Rec.	<p><b>Incentive systems are in place to support the implementation of Sustainable Water Management.</b></p> <p><i>These systems may include:</i></p> <ul style="list-style-type: none"> <li>• Water pricing.</li> <li>• Subsidies for sustainable utilities or water protection measures.</li> <li>• Fees or charges reflecting the "polluter pays principle".</li> </ul>