

# Alliance for Water Stewardship (AWS)

Audit Number: AO-001669

#### SITE DETAILS

Site: Solar - Manaus, Brazil

Address: Av. Torquato Tapajós, 5800, Bairro Colônia Terra Nova, 69.093-415, Manaus, Amazonas,

BRAZIL

Contact Person: Antonio Santos (Consultant)
AWS Reference Number: AWS-000705

Site Structure: Single Site

#### **CERTIFICATION DETAILS**

Certification status: Certified Core

Date of certification decision: 2025-Nov-17

Validity of certificate: 2028-Nov-16

#### **AUDIT DETAILS**

Audited Service(s): AWS Standard v2.0 (2019)

Audit Type(s): Initial Audit Audit Start Date: 2025-Aug-26 Audit End Date: 2025-Aug-28

Lead Auditor: Rosane Monteiro Borges

Site Participants:

Hallimy Rodrigues Frutuoso, Integrated Management System Coordinator

Ana Karoline Santos Rocha, Environmental Analyst

Paula Inara Michiles Guimaraes, Integrated Management System Analyst

Renan Brandão e Souza, Quality Coordinator Kelen Amaral Devezas, Production Manager

Christian Teixeira de Carvalho, Industrial Manager

Adilson Farias Lopes, Maintenance Coordinator

Catiane Alves Lima, Occupational Safety Engineer

Ricardo Afonso dos Santos Albuquerque, Production Coordinator

Bruno Farias Leitão, Production Coordinator

Antonio Carlos dos Santos, Environmental Coordinator

Rayssa Melo de Araújo, Integrated Management System Analyst

Emilly de Oliveira Gomes, Integrated Management System Analyst

Fabíola do Espírito Santo Guedes, CSC Analyst

Itaciara Eufemia Cavalcante do Nascimento, CSC Supervisor

Paulo Andre Felix Trindade, Engineering Coordinator

Juliane Pereira Gomes, Quality Supervisor

Sara Ruiz, Occupational Nursing Technician

Tarcísio Queiroz dos Santos, Leadership III of the Solid Waste Sector (Coplast Rio Limpo)

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#### **Alliance for Water Stewardship (AWS)**

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#### **ADDITIONAL INFO**

Summary of Audit Findings: During the certification audit, 4 non-conformities and 9 observations were raised.

The Client is requested to submit a root cause analysis and corrective actions for each of the non-conformities to WSAS within 7 days of receipt of the audit report, by 16 October 2025.

The non-conformities must be closed within 90 days of the end of the audit. In order to meet this timeline evidence is to be submitted to WSAS (within 75 days) by 12 November 2025.

The audit team recommends certification of Solar Manaus at Core level pending closure of the non-conformities.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of Coca-Cola Solar Manaus against the AWS International Water Stewardship Standard Version 2.

Coca-Cola Solar Manaus is located in the city of Manaus, Amazonas State, Brazil. The company is located in the northern urban area of Manaus, surrounded by businesses and residences. Number of Employees: 1,320.

Total Area: 294,979.00 m<sup>2</sup>. Total Built Area: 33,521.23 m<sup>2</sup>.

Solar Manaus produces, distributes, and sells carbonated beverages (soft drinks) and non-carbonated beverages (juices and water bottling), as well as alcoholic beverages. The facility has one boiler, three cooling towers, four condensers, two groundwater pumps, a water treatment plant, a wastewater treatment plant, a water storage tower, chemical storage areas, and solid waste treatment. The unit does not use water from the local utility company to supply the plant.

Solar Manaus is located in the Tarumã-Açu River Basin and collects water from the Alter do Chão Aquifer and discharges effluent into the Passarinho Stream. The Alter do Chão Aquifer is an unconfined, semi-confined aquifer (below the Icá formation) that can reach up to 1,200 meters in thickness. It has high productivity, and its waters can contain high iron levels and few dissolved salts.

The audit was conducted onsite on 26th to 28th, August 2025.

The onsite site visit included the assessment of Water source locations (groundwater wells) and water disposal sites used by the client (view from the top of the site, due to difficult access); On-site water infrastructure: Water storage in the structure called Castelo, Water Treatment Plant, Effluent Treatment Plant; Visit to the watershed, held at Marina do Davi (external IWRA); WASH facilities on the site; Chemical storage and solid waste treatment areas; Production process; On-site medical clinic.

#### **FINDINGS**

Observation1Observation8Non-Conformity4



#### **Alliance for Water Stewardship (AWS)**

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#### **FINDING DETAILS**

Finding No: TNR-019615

Checklist Item No: 1.1.1
Status: Closed

Finding level: Non-Conformity

Due date: 2025-Dec-27

Checklist item: The physical scope of the site shall be mapped, considering the

regulatory landscape and zone of stakeholder interests, including:

- Site boundaries;

- Water-related infrastructure, including piping network, owned or

managed by the site or its parent organization;

- Any water sources providing water to the site that are owned or

managed by the site or its parent organization;

- Water service provider (if applicable) and its ultimate water source;

- Discharge points and waste water service provider (if applicable) and

ultimate receiving water body or bodies;

- Catchment(s) that the site affect(s) and is reliant upon for water.

Findings: The discharge of rainwater runoff from Solar Manaus to the final

receiving body (Igarapé do Passarinho) has not been mapped, as

verified in Plan LPA-1125-65-01-A-DP.pdf.

Corrective action: 1. Issue a Purchase Order to update the floor plan, including all outlets

up to the disposal point in the receiving body - 10/20/2025

2. Perform the service by preparing the floor plan, including all outlets up

to the disposal point in the receiving body - 10/31/2025

Evidence of implementation: Request and Project carried out



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Finding No: TNR-019616

Checklist Item No: 1.2.1 Status: Closed

Finding level: Non-Conformity

Due date: 2025-Dec-27

Checklist item: Stakeholders and their water-related challenges shall be identified. The

process used for stakeholder identification shall be identified. This

process shall:

- Inclusively cover all relevant stakeholder groups including vulnerable,

women, minority, and Indigenous people;

- Consider the physical scope identified, including stakeholders,

representative of the site's ultimate water source and ultimate receiving

water body or bodies;

- Provide evidence of stakeholder consultation on water-related interests

and challenges;

- Note that the ability and/or willingness of stakeholders to participate

may vary across the relevant stakeholder groups;

- Identify the degree of stakeholder engagement based on their level of

interest and influence.

Findings: No evidence of consultation with the Indigenous communities in the

Target Area was presented (Rouxinol, Gavião, Inhaã Be, Santa Maria,

Parque das Tribos Communities).

No evidence of consultation with the community or project neighboring the Solar Manaus Industrial Plant was presented (Academy and community in irregular occupation adjacent to the Unit, where the

treated effluent is discharged).

Corrective action: 1. Include a strategy in the WSP to reach these communities through

private or social institutions regarding process mapping - 10/20/2025

2. Contact institutions and residents within the communities -

10/31/2025

3. Conduct a visit to the prison to understand how the water source is used and measure the degree of influence on water - 10/20/2025

4. Map, together with the unit's sales team, projects located within communities under irregular occupation to measure the degree of local

influence on water-related issues - 10/31/2025

Finding No: TNR-020572

Checklist Item No: 1.3.2 Status: Open

Finding level: Observation

Checklist item: Site water balance, including inflows, losses, storage, and outflows shall

be identified and mapped

Findings: The site could identify or map rainwater inflow and stormwater runoff.



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Finding No: TNR-019619

Checklist Item No: 1.3.3 Status: Closed

Finding level: Non-Conformity

Due date: 2025-Dec-27

Checklist item: Site water balance, inflows, losses, storage, and outflows, including

indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high

and low variances shall be quantified.

Findings: The losses identified by the Site in the Water Balances in the years 2024

and 2025 were calculated at 18 and 25%, respectively. Such high losses indicates that quantification of some of the outflows, e.g. evaporation or

part of discharges, needs to be reviewed.

Corrective action: 1. Map potential factors impacting the water balance, focusing on

identifying sources of real and apparent losses - 10/31/2025

2. Conduct training with the responsible team to align on the concept of

water losses and correct data interpretation - 10/31/2025

3. Request a meeting with a specialized consultancy (AquaFly) for a technical review of the water balance model, ensuring it is up-to-date

and appropriate for the unit's needs - 10/31/2025

4. Review the water balances from the last three months, focusing on identifying inconsistencies and necessary adjustments - 10/31/2025

5. Develop and implement an Operating Procedure (OP) for the complete and accurate completion of the water balance spreadsheet,

including responsibilities and frequency - 10/31/2025

6. Establish a routine for monthly validation of water balance data,

monitoring variations and losses - 10/31/2025

Evidence of implementation:

Note: Evidence MAO-PO-GQA-AQ-20 Water Simulator, completes the actions below:

4. Review the water balances from the last three months, focusing on identifying inconsistencies and necessary adjustments - 10/31/2025

5. Develop and implement an Operating Procedure (OP) for the complete and accurate completion of the water balance spreadsheet,

including responsibilities and frequency - 10/31/2025



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Finding No: TNR-019620

Checklist Item No: 1.5.3 Status: Open

Finding level: Observation

Checklist item: The catchment water-balance, and where applicable, scarcity, shall be

quantified, including indication of annual, and where appropriate,

seasonal, variance.

Findings: Solar Manaus needs to make greater efforts to collect data and updated

information on the current situation of the Alter do Chão Aquifer.

Finding No: TNR-019621

Checklist Item No: 1.6.1
Status: Open

Finding level: Observation

Checklist item: Shared water challenges shall be identified and prioritized from the

information gathered.

Findings: In the interview with one of the Stakeholders, an additional challenge

was identified in the Basin: the increase in irregular floating structures in

the rivers.

Finding No: TNR-020344

Checklist Item No: 1.8.4 Status: Open

Finding level: Observation

Checklist item: Relevant catchment best practice for site maintenance of Important

Water-Related Areas shall be identified.

Findings: Good practices related to this Indicator must also evaluate the practices

adopted by other Institutions in the Basin or Region and not only the

practices carried out on the site.

Finding No: TNR-019622

Checklist Item No: 3.3.1
Status: Open

Finding level: Observation

Checklist item: Status of progress towards meeting water balance targets set in the

water stewardship plan shall be identified.

Findings: The WSP Target - item 6.1: Reduce water consumption per liter of

beverage produced (WUR) to 1.39 by December 2025 will not be achieved, according to information from Solar Manaus. It will be

reassessed for inclusion in 2026.



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Finding No: TNR-019623

Checklist Item No: 3.6.2 Status: Open

Finding level: Observation

Checklist item: Evidence that the site is not impinging on the human right to safe water

and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the

case, and that these are effective.

Findings: Solar Manaus is dealing with Coca-Cola LATAM regarding the

non-compliance recorded by AMBIPAR audit, as it requires authorization

from LATAM Coca-Cola to change the label on the PET bottles, including the wording required by the legislation of the state of

Amazonas

Finding No: TNR-019624

Checklist Item No: 3.8.1 Status: Open

Finding level: Observation

Checklist item: Evidence of engagement, and the key messages relayed with

confirmation of receipt, shall be identified.

Findings: The treated effluent and stormwater discharge pipeline runs through a

private area adjacent to Solar Manaus. The integrity of this pipeline was not verified between the unit's wall and the effluent and stormwater discharge point into the Passarinho stream, nor were there any complaints recorded about any problems related to this pipeline by the project under construction (private condominium). Solar Manaus' engineering department maintains contact with the project under

construction.

Finding No: TNR-019625

Checklist Item No: 4.1.2 Status: Closed

Finding level: Non-Conformity

Due date: 2025-Dec-27

Checklist item: Value creation resulting from the water stewardship plan shall be

evaluated.

Findings: No specific assessment of value creation was carried out for the

achievement of Objectives and Goals contained in the WSP.

Corrective action: 1. Update the WSP form, considering in a more descriptive way the

values generated according to each mapped goal - 10/31/2025

Evidence of implementation: The WSP update has been added, taking into account the detailed

values generated per action.



#### **Alliance for Water Stewardship (AWS)**

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Finding No: TNR-019626

Checklist Item No: 4.3.1 Status: Open

Finding level: Observation

Checklist item: Consultation efforts with stakeholders on the site's water stewardship

performance shall be identified.

Findings: There was no evidence of communication with stakeholders updated in

Solar Manaus Stakeholder List (Indigenous Communities of Rouxinol, Gavião, Inhaã Be, Santa Maria, Parque das Tribos, as well as for the Academy located next to the Solar Manaus Unit and the Community under irregular occupation located next to the Solar Manaus Unit).

NC was previously assigned (Indicator 1.2.1)

Finding No: TNR-019627

Checklist Item No: 5.3.1
Status: Open

Finding level: Observation

Checklist item: A summary of the site's water stewardship performance, including

quantified performance against targets, shall be disclosed annually at a

minimum.

Findings: The performance of WSP's Objectives and Goals was communicated to

stakeholders and internal audiences.

Updates to the Sustainable Water Plan due to the Audit Process will be

included in future communications, specifically employees and

permanent service providers of Solar Manaus Unit.



# Alliance for Water Stewardship (AWS)

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Report Details		
Report	Value	
Report prepared by	Rosane Borges	
Report approved by	Carla Oberdiek	
Report approved on (Date)	02.10.2025	
Surveillance		

#### Proposed date for next audit

2026-Aug-26

#### **Stakeholder Announcements**

Date of publication	Location
29/06/2025	Newspaper A Crítica, page A5.
24/06/2025	Solar Coca-Cola Website ( https://www.solarbr.com.br/noticia/90 51/solar-ira-conquistar-sua-oitava-cer tificacao-aws-em-manaus) AWS and WSAS Websites

#### Comment

The disclosures were made in the following media:

- Solar Coca-Cola website, June 24th, 2025: https://www.solarbr.com.br/noticia/9051/solar-ira-conquistar-sua-oitava-certificacao-aws-emmanaus
- Newspaper Disclosure (June 29th, 2025): A Crítica Page A5.

The announcement of both measures was made at least eight weeks before the audit date. The newspaper announcement provides information about the audit and how to contact WSAS.

The announcement on the company's website provides the same information as the newspaper, including the company's contact information in case the stakeholder is interested in making a statement.

Evidence attached.

#### Comment

The interviews (two) were conducted with the following stakeholders:

- Representative of the Tarumã-Açu River Basin Committee, of which Solar Manaus is a member. It includes representatives from organized civil society, public authorities operating in the basin, and basin users (industries and others).
- Representative of the Dr. Zilda Arns Neuma Full-Time State School. Its students are members of the community neighboring Solar Manaus.

One of the interviewees requested confidentiality regarding the content of his interview. However, he authorized the publication of his name as the interviewee.

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#### **Alliance for Water Stewardship (AWS)**

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#### **Catchment Information**

#### **Catchment Information**

Catchment Name: Tarumã-Açu Watershed.

Water Collection Aquifer used by Solar Manaus: Alter do Chão Aquifer. Treated Effluent Discharge Point for Solar Manaus: Passarinho Creek.

Alter do Chão Aquifer: Unconfined and semi-confined aquifer (below the Icá formation) that can reach up to 1,200 meters in thickness. It has very high productivity, its waters can contain high iron levels, and have few dissolved salts. The unit does not use water from a local utility company to supply the plant, but draws water from wells in the aforementioned aquifer.

The most representative basin of the target area is the Tarumã-Açu Watershed, a tributary of the left bank of the Negro River, located approximately 9 km to the right of the Solar Manaus unit. The Tarumã-Açu watershed is a periurban basin located upstream of Manaus. It covers approximately 1,372.73 km2, and its main tributary, the Tarumã-Açu River, is 42,105 km long. It is located in a tropical climate.

The Tarumã-Açu watershed occupies approximately 12% of the Manaus Territory, encompassing an estimated population of 496,158 inhabitants distributed across 14 neighborhoods within the municipality, making it one of the region's main basins.

The lower reaches, where the plant is located, contain the largest anthropogenic areas of the basin (urbanized, open-air, rural, and mining areas), while forested areas are predominantly found in the upper reaches.

The center of the basin exhibits a mix of land use and land cover classes. The presence of two conservation units within the basin perimeter is noted: the Adolfo Duck Forest Reserve and the Tarumã/Ponta Negra Environmental Protection Area.

According to the regional report prepared by the IPCC (2021) for South America, Manaus is located in the northern region of South America, and its main projections are:

- Increased intensity and frequency of extreme precipitation and flooding, increasing by 2°C (medium confidence) and a significant increase in the number of dry days and the frequency of droughts (high confidence).

According to the Tarumã-Açu River Basin Status Report (2020), the municipality of Manaus has a water supply rate of 91.89% in the urban area, but does not serve the rural area. The water pipelines are located downstream of the Tarumã-Açu River, making it a fundamental watercourse for urban public water supply. Regarding sewage collection and treatment, Manaus has a very low rate, 12.43% (2019).

Water resource uses in the basin: public, commercial, and industrial water supply, irrigation, animal watering, aquaculture, tourism and recreation, fishing, navigation, and effluent dilution. Currently, there are no inter-basin transfer projects involving the Tarumã-Açu River Basin as either a donor or recipient basin.



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Mapa 4 - Área Alvo da Solar Manaus.jpeg

#### **Client Description and Site Details**

#### Client/Site Background

Coca-Cola Solar Manaus is located in the city of Manaus, Amazonas State, Brazil. The company is located in the northern urban area of Manaus, surrounded by businesses and residences.

Number of Employees: 1,320. Total Area: 294,979.00 m². Total Built Area: 33,521.23 m².

Solar Manaus produces, distributes, and sells carbonated beverages (soft drinks) and non-carbonated beverages (juices and water bottling), as well as alcoholic beverages. The facility has one boiler, three cooling towers, four condensers, two groundwater pumps, a water treatment plant, a wastewater treatment plant, a water storage tower, chemical storage areas, and solid waste treatment. The unit does not use water from the local utility company to supply the plant.

Solar Manaus is located in the Tarumã-Açu River Basin and collects water from the Alter do Chão Aquifer and discharges effluent into the Passarinho Stream. The Alter do Chão Aquifer is an unconfined, semi-confined aquifer (below the Icá formation) that can reach up to 1,200 meters in thickness. It has high productivity, and its waters can contain high iron levels and few dissolved salts.



Mapa 1 - Localização do site da Solar Manaus.jpeg

Comment Attached files:

ANEX D - WSAS Site and Catchment Questionnaire.docx

Protocolo Declaração de Carga Poluidora.pdf Mapa 1 - Localização do site da Solar Manaus.jpeg



#### **Alliance for Water Stewardship (AWS)**

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#### **Summary of Shared Water Challenges**

#### **Summary of Shared Water Challenges**

The challenges stem from the mapping conducted by Solar Manaus, interviews with stakeholders, studies conducted by consulting firms, and the AWS audit process:

- Study, map, and regulate the use of water from Alter do Chão Aquifer, which indicates a decline in the aquifer's level by 2040;
- Increase the sanitation rate in the target area, which is approximately 12.5%, considered very low:
- Assess the presence of illegal occupations in an area near the discharge point for treated effluent from Solar Manaus;
- Find a solution for the situation in Solar Manaus effluent receiving body, which is losing its dilution capacity;
- Regulate the presence of illegal floating vessels in the target area (which has been increasing in the region over the past 10 years).

Comment Attached files:

1.6.1 Desafios compartilhados.xlsx Stakeholders Interviews.pdf



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#### STEP 1: GATHER AND UNDERSTAND

1.1 Gather information to define the site's physical scope for water stewardship purposes, including: its operational boundaries; the water sources from which the site draws; the locations to which the site returns its discharges; and the catchment(s) that the site affect(s) and upon which it is reliant.

**1.1.1** The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:



- Site boundaries;
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization:
- Any water sources providing water to the site that are owned or managed by the site or its parent organization;
- Water service provider (if applicable) and its ultimate water source;
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;
- Catchment(s) that the site affect(s) and is reliant upon for water.

Comment

The following documents were identified in accordance with the Indicator:

- Figure 1 Location Map of Brasil Norte Bebidas Manaus Unit; Chapter 4 Unit Description.
- Process flowcharts code LPA-1165, showing the infrastructure available at the unit for the disposal of industrial effluent to the receiving body, domestic effluent to the receiving body, distribution of treated water for processing and human consumption, water for firefighting, and collection and disposal of rainwater (one branch partially identified).
- Figure 2 Location Map of raw water collection wells, the source of Solar Manaus' water supply
- Figure 3 Location Map of the WTP, ETE, and treated effluent disposal point.

Target Area: Tarumã-Açu River Basin.

The target area is presented in the following documents:

- Figure 4 Tarumã-Açu River Basin;
- Figure 5 Regional Geology;
- Figure 6 General Geomorphology of the Target Area;
- Figure 7 Land Use and Occupation in the Tarumã-Açu River Basin;
- Figure 8 Hydrogeological Domains of the Target Area.
- Figure 9 Hydrography of interest in the target area.

The discharge of rainwater runoff from Solar Manaus to the final receiving body (Igarapé do Passarinho) has not been mapped (one branch partially missing), as verified in Plan LPA-1125-65-01-A-DP.pdf.

Non-compliance recorded.

1.2 Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.

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Finding No: TNR-019615



#### **Alliance for Water Stewardship (AWS)**

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**1.2.1** Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:



- Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people;
- Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies;
- Provide evidence of stakeholder consultation on water-related interests and challenges;
- Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups;
- Identify the degree of stakeholder engagement based on their level of interest and influence.

Comment

Solar Manaus provided evidence of contact with the stakeholders listed in file 1.2.2 STAKEHOLDER ENGAGEMENT PLAN (June 16, 2025), using forms and emails attached to this Indicator.

However, no evidence of consultation with the Indigenous communities in the Target Area was presented in the Solar Manaus Stakeholder List (Rouxinol, Gavião, Inhaã Be, Santa Maria, Parque das Tribos Communities).

Also, no evidence of consultation with the community or project neighboring the Solar Manaus Industrial Plant was presented in the Stakeholder List (Academy and community in irregular occupation adjacent to the Unit, where the treated effluent is discharged).

Evidence of meetings with some of the stakeholders identified throughout the stakeholder identification and mapping process was also presented (Photographic Records of Actions and Partnerships).

An internal Solar Manaus document was attached (Controlled Copy Sol-PN-MAB-MA-05R04-Water Resources Management.pdf).

The procedures for stakeholder mapping are described in items 5.14 to 5.19. STAKEHOLDER ENGAGEMENT PLAN – STAGE 1: IDENTIFY AND ASSESS KEY STAKEHOLDERS. "Stakeholder identification should be accomplished by listing all stakeholders with an interest in water-related issues, whether internal or external. This list should include regulatory agencies, water-related groups, consumers, employees, other users of the same water source as the plant, etc."

The initially identified stakeholders were: CBHTA - Tarumã-Açu River Basin Committee Águas de Manaus ANA (National Water Agency) IPAAM - Amazonas State Environmental Protection Institute **CERH - State Water Resources Council** SEMA (Environmental Secretariat) **SEMULSP** IBAMA SUPERINTENDENCE IN AMAZON FAS - Sustainable Amazon Foundation RITZ Castanheiras Federal University of Amazonas - UFAM C.E.T.I Zilda Ams Neumann The Coca-Cola Company - LATAM Division Bioagri Laboratory Microlab Laboratory Collaborators **INNOVA** Regional Chemistry Council XIV

Non-conformity registered.

Coplast Indústria Química Ltda

Recofarma Indústria Da Amazônia LTDA

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Finding No: TNR-019616

1.2.2 Current and potential degree of influence between site and stakeholder

shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.

Yes

Comment Attached Documents:

1.2.2 WATER STAKEHOLDER ENGAGEMENT PLAN (June 16, 2025).xlsx 1.2.2 WATER STAKEHOLDER ENGAGEMENT PLAN (August 28, 2025).xlsx

Controlled Copy Document SOL-PN-MAB-MA-05R04-Water Resources Management.pdf.

Table 5 – Description of stakeholder power/influence classifications in water (page 11 of attached document SOL-PN-MAB-MA-05R04) defines how Solar Manaus classifies stakeholder power/influence on the water topic, which is recorded in Column M of the Engagement Plan.

The stakeholders mentioned in item 1.2.1 were not, however, contacted to consolidate the information in columns L, M, N, and other missing columns regarding the contacts to be established with these stakeholders.

The potential degree of influence between the site and stakeholders was identified for Indigenous peoples mapped and Neighborhood - Community/Academy.

1.3 Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.

**1.3.1** Existing water-related incident response plans shall be identified.



Comment Attached Documents:

Contingency Plan MAO\_rev00.xls PAE - Emergency Response Plan.

Anticipated emergency scenarios:

- Potential contamination of well water or municipal water due to: vulnerability of the watershed due to low sewage treatment rates, microbiological contamination in water sources, and changes in physical and chemical patterns in water sources (wells);
- Risk of water shortages;
- Flooding;
- Problems with Solar Manaus' wastewater treatment plant (ETE);
- Occurrence of Environmental Accidents;
- Shutdown of Solar Manaus' water intake sources (intake pumps): Shutdown of Wells 1 and 2 due to pump problems, equipment failure, fallen trees in the pipelines, and other natural disasters.
- Fire and other risks identified in the Solar Manaus Emergency Response Plan.

The anticipated emergency scenarios cover possible water-related incidents and the anticipated plans contain actions to address water-related emergencies.

**1.3.2** Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped

**Q** Obs.

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Comment Attached documents:

Water Balance 2024.xlsx Water Balance 2025.xlsx 24. Water Balance Flowchart.pdf 1.1.20 Unit Water Balance.pdf

Water recycling is not used at Solar Manaus.

Rainwater inflows and outflows are not identified and mapped in the flowcharts presented.

A nonconformity was recorded.

**1.3.3** Site water balance, inflows, losses, storage, and outflows, including

indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high

and low variances shall be quantified.

Comment Attached documents:

Water Balance 2024.xlsx Water Balance 2025.xlsx

1.3.3 Variations in Water Use.xlsx

During the audit, an error was identified in the Water Balance calculation, and the information

was recalculated and presented.

After the new calculation presented, the error remained above 5%.

The losses identified by the Site in the Water Balances for the years 2024 and 2025 were

calculated at 18 and 25%, respectively, above the acceptable 5%.

Non-conformity was recorded.

Water quality of the site's water source(s), provided waters, effluent and

receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.

**⊘** Yes

Finding No: TNR-019619

closed

1.3.4

# WSAS WATER STEWARDSHIP ASSURANCE SERVICES

#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### Comment Attached files:

- 1. Analytical reports of water and effluent control points (raw water, treated water, raw effluent, treated effluent, water and oil separation tank) at the Solar Manaus plant for the years 2021, 2022, 2023, 2024, and 2025.
- 2. Analytical reports of water quality control of the receiving body upstream and downstream of the treated effluent discharge point at Solar Manaus for the years 2021, 2022, 2023, 2024, and 2025.
- 3. Water and effluent control spreadsheets for the years 2021, 2022, 2023, 2024, and 2025.
- 4. Operating License No. 044.91-27.pdf and communications with IPAAM sending analytical results related to the license.
- 5. Water Resource Use Permit No. 416-2021 1st amendment (2500.2021).pdf
- 6. Procedure SOL-PN-MAB-MA-07R05 Wastewater Management.pdf
- 7. Procedure ENV-RQ-225 Wastewater Management.pdf

In addition to the control parameters for the discharge of treated effluents into Iguarapé do Passarinho (as set forth in the Operating License), Solar Manaus has Coca-Cola KORE control parameters, which are more stringent than the legal parameters (as set forth in the water and effluent control spreadsheets).

The receiving body experiences fluctuations in flow due to periods of heavier rainfall and periods with less rainfall in the region. The rainy season runs from December to May, with the heaviest rainfall between March and April, when rivers rise rapidly. The driest season runs from June to November, with July, August, and September being the months with the lowest rainfall.

The attached control spreadsheets show the analytical results and any variations in control parameters throughout the year.

Examples of parameters above KORE limits but meeting legal limits in 2024 include:

May, July, and December: BOD;

January, May, June, July, and September, and December: Total Phosphorus;

March and July: Total Nitrogen;

January, March, and December: Total Suspended Solids;

June, September, and October: True Color;

February, September, and November: Fecal Coliforms.

In 2024, Solar Manaus met 100% of legal parameters. Regarding KORE requirements, it met 68% of the defined limits.

In 2025, Solar met 100% of legal parameters. Regarding KORE requirements, it met 85.9% of the defined limits until June.

In some months, there is evidence of fluctuations in the quality of the receiving body (Iguarapé do Passarinho) due to the discharge of treated effluent from Solar Manaus. Analyses are conducted at points upstream and downstream of the treated effluent discharge. It should be noted that Iguarapé do Passarinho receives discharges of other effluents, including untreated sewage from the region.

#### Examples:

In 2024, positive fluctuations were observed in the rainy season (February, April, and May) for most of the parameters analyzed upstream and downstream of the receiving body. Negative fluctuations were observed in the dry season (August and November), meaning a greater number of parameters were negatively impacted (values downstream were higher than upstream in the receiving body, following the discharge of treated effluent from Solar Manaus).

2025 was an atypical year, as reported by the auditees, with less rainfall than expected in February and April.

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In February and April 2025, the parameters BOD, Total Phosphorus, Dissolved Oxygen, Total Dissolved Solids, Dissolved Aluminum, Dissolved Iron, Free Residual Chlorine, Coliforms, and Total Phenol are above the acceptable values for the watercourse (according to CONAMA Resolution 257/2005, for class 2 water bodies).

During these months, the following analytical parameters changed to higher values after the discharge of Solar Manaus effluents (downstream) than those recorded before the discharge of Solar Manaus effluents (upstream):

#### February:

SST, in mg/l, from 122.80 to 789.00 (above the values permitted by CONAMA Resolution 357/1997, bellow 500 mg/l);

Dissolved aluminum, in mg/l, from 0.56 to 1.04 (value permitted below 0.1 mg/l by CONAMA Resolution 357/1997);

Dissolved iron, in mg/l, from 1.40 to 1.92 (value permitted below 0.3 mg/l by CONAMA Resolution 357);

Coliforms, UFC/MPN, from 33,000.00 to 32,000.00 (permitted value less than 1,000 UFC/MPN by CONAMA Resolution 357).

Other parameters either remain the same, increase (in the case of dissolved oxygen, this variation being beneficial to the watercourse), or are diluted by the discharge of Solar Manaus effluents: BOD, Total phosphorus, Ammoniacal nitrogen, Oils and greases, Temperature, Dissolved oxygen, pH, Cadmium, Lead, Residual or free chlorine, True color, Total chromium, Sulfates, Total phenol.

#### April:

BOD, in mg/L, from 16,20 to 17,50 (permitted value less than 5 mg/L by CONAMA Resolution 357/1997);

Total phosphorus, in mg/l, from 0,13 to 0,16 (permitted value less than 0,03 mg/L by CONAMA Resolution 357/1997);

Dissolved Oxygen, in mg/L, from 3.80 to 3.70 (permitted value greater than 5 mg/L by CONAMA Resolution 357/1997);

Coliforms, CFU/MPN, from 40,000.00 to 220,000.00 (permitted value less than 1,000 CFU/MPN by CONAMA Resolution 357);

Total phenol, in mg/L, from 0.13 to 0.20 (permitted value less than 0.003 mg/L by CONAMA Resolution 357).

Other parameters either remain the same or are diluted by the discharge of Solar Manaus effluents: Ammoniacal nitrogen, Oils and greases, Temperature, pH, TDS, Dissolved aluminum, Cadmium, Lead, Residual or free chlorine, True color, Total chromium, Dissolved iron, Sulfates.

Solar Manaus is complying with IPAAM Operating License No. 044/91-27 (valid until May 2026), which stipulates compliance with the parameters of CONAMA Resolution 430/2011 for treated effluent. Coca-Cola KORE parameters define more parameters to be controlled than CONAMA Resolution, and the values are more restrictive than Brazilian legislation. In February and April 2025, the percentage of compliance with Coca-Cola KORE parameters

and Brazilian legal parameters (as per the Operating License) was as follows: February: Solar Manaus met 85% of the limits stipulated by Coca-Cola KORE parameters and

100% of the parameters stipulated by its Operating License. April: Solar Manaus met 92% of the limits stipulated by Coca-Cola KORE parameters and 100% of the parameters stipulated by its Operating License.

**1.3.5** Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.





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Comment Attached documents:

Controlled copy MAO-PC-MAB-MA-12R01 Map of possible contamination points.pdf.

Current chemical product registry.xlsx

Potential sources of pollution were identified and mapped, and a list of chemicals used or

stored on site was provided.

During the site tour, compliance with the Indicator was observed.

1.3.6 On-site Important Water-Related Areas shall be identified and mapped,

including a description of their status including Indigenous cultural

values.

Comment Attached Documents:

AIRA.jpg

MAO AIRAS Survey at the Unit (on-site) solar standard.xlsx

07.25 Facility Cleaning Record - Mowing, Weeding, and Sweeping.pdf

Photos 1 to 6 - Internal IWRA and Wells at Site Tour.

Internal IWRA Designation: Green Area (Area covered with native vegetation, located within

the Solar Coca-Cola unit in the city of Manaus).

Status defined in Columns F and G of the MAO AIRAS Survey at the Unit document and

verification as defined in Column N of the same document.

**1.3.7** Annual water-related costs, revenues, and a description or

quantification of the social, cultural, environmental, or economic

water-related value generated by the site shall be identified and used to

inform the evaluation of the plan in 4.1.2.

Comment Attached documents:

1.3.7 3.3.4 4.1.2 Generated Values.xlsx

1.3.7 Summarized Costs.xlsx

Pollution load statements for 2023, 2024, and 2025 (report sent to the Environmental Agency,

including updates and investments made at the Solar Manaus ETE - referenced to the

previous year's history).

The following costs and investments were identified by Solar Manaus:

AWS Consulting AWS Certification

Fees related to the grant

Structure maintenance expenses

Water and effluent analysis

Reforestation Reuse projects

Cost of water management professionals (corporate + local)/hour worked

WTP improvements WTP improvements

Cost of water treatment chemicals and electricity.

**1.3.8** Levels of access and adequacy of WASH at the site shall be identified.

**⊘** 

Yes

Yes

Yes



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Comment Attached Documents:

WASH Map.pptx

1.3.8 Water Consumption Points FMAO 2025.xlsx

1.3.8 NR-24 Comparisons.xlsx

Active Employees.xlsx

Solar Manaus Breastfeeding Room.jfif

The WAHS Map document presents a map with the location of bathrooms, showers, sinks, and drinking fountains at the Solar Manaus. Document 1.3.8 Water Consumption Points FMAO 2025 contains tables with the locations and quantities of the mapped items and their uses by gender (male, female, unisex).

Documents 1.3.8 NR-24 Comparisons contains the calculation performed by Solar Manaus Unit to inform the adequacy of the number of bathrooms and changing rooms, restrooms, sinks, and showers to the requirements of Regulatory Standard NR-24. The Active Employees document reports the total number and names of employees that work in the shift with more people. Some people work outside the unit and were therefore not included in the calculation.

The Breastfeeding Room document demonstrates Solar Manaus' compliance with Law 14,457/22 (the "Employ + Women Program"), which amends the Labor Laws (CLT) to require companies employing more than 30 women over the age of 16 to provide adequate breastfeeding spaces.

Plan LPA-1125-65-01-A-ES.pdf, attached to Indicator 1.1.1, demonstrates the connections of WASH facilities to the Domestic Effluent Treatment Plant of Solar Manaus Unit.

- 1.4 Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.
- **1.4.1** The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.



Comment

Attached Documents:

1.4.1 Input Suppliers.xlsx

There are only two input suppliers identified in the target area, a criterion used by Solar Manaus to seek further information from input suppliers regarding their water management practices:

- Carboman-Gas Carbonico de Manaus LTDA
- VIDEOLAR-INNOVA S/A

Evidence of Solar Manaus' communication with both suppliers is attached:

Communication to supplier (indirect water use) Carboman.pdf Communication to supplier (indirect water use) INNOVA.pdf Water consumption email CARBOMAN.pdf Water consumption email INNOVA.pdf

Water risk assessments were conducted using two tools—Aqueduct and Water Risk Filter—for the identified services and input suppliers, as shown in the lists that were presented.

**1.4.2** The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.



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Comment Document attached:

1.4.2 Service Providers.xlsx

The following companies perform their services internally at Solar Manaus' facilities, and therefore, their water consumption and effluent generation are accounted for along with Solar Manaus' other water uses:

GR SERVIÇOS E ALIMENTAÇÃO LTDA - INTERNAL.

ECOLAB QUIMICA LTDA - INTERNAL.

BRASANITAS EMPRESA BRASILEIRA DE SANEAMENTO E CONSULTA LTDA -

INTERNAL.

POTABILIZA PERFURAÇÃO E CONSTRUÇÃO DE POÇOS EIRELI-EPP - INTERNAL.

Solar Manaus' vehicle washing is performed externally at FC DA SILVA CARDOSO LTDA (LL AUTO PARTS), which is located outside the Target Area (Basin), as per column E, document 1.4.2 Service Providers.xlsx.

Each employee receives a set of seven uniforms, and each launders their own uniform. The company does not use an external laundry service for this purpose.

Water risk assessments were conducted using two tools—Aqueduct and Water Risk Filter—for the identified services and input suppliers, as shown in the lists that were presented.

- 1.5 Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH
- 1.5.1 Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.



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#### Comment Attached Documents:

- PLANO MUNCIPAL DE SANEAMENTO BASICO MANAUS (2014).pdf
- Projeto Escola D'Água Amazonas -FAS.pdf
- Tdr Plano de Trabalho Plano de Bacia Tarumã-açu Aprovado.pdf
- Programa Água+Acesso FAS.pdf
- Programa Trata Bem Manaus Águas de Manaus.pdf
- Plano Estadual de Recursos Hídricos (PERH-AM) pdf
- Ação Limpeza dos rios SPRITE.pdf
- Oportunidades quanto a projetos mapeados Manaus.pdf

The following collective action opportunities were identified in the plans and projects listed below:

River Cleanup Action: Engage employees and the community in cleanup efforts, strengthen the image of urban river care, and link to the "Water Mission" program, generating positive media coverage and direct brand reputation benefits.

Urban Drainage Master Plan of the Municipality of Manaus: Contribute technical data and best practices from the unit on stormwater management. Possible cooperation in studies or pilot projects on sustainable drainage (reuse, permeable paving, rainwater retention).

State Water Resources Plan: Solar will be recognized as a collaborating company in state water governance. Support workshops, public consultations, and present the unit's case studies (e.g., reuse, consumption reduction). This strengthens the institution's positioning before the State.

Strategic Water Resources Plan for the Tributaries of the Right Bank of the Amazon River: Showcase Solar's practices in the Tarumã-Açu Basin as a benchmark for other companies in the Basin. Participate in technical forums and ensure the alignment of corporate goals with basin strategies, reinforcing credibility.

Municipal Basic Sanitation Plan: Cooperate in initiatives to improve basic sanitation, through social projects or technical support. Involvement in neighboring communities can be linked to Solar's commitment to health and well-being, through a partnership with Semulsp.

Água+Acesso Program - FAS: Strategic partnership with FAS to bring drinking water and sanitation infrastructure to traditional communities.

Trata Bem Manaus Program: Support educational campaigns on water quality and sanitation, expanding positive brand awareness. Involve employees as knowledge multipliers.

Amazonas Water School Project - FAS: Develop partnerships for environmental education initiatives for young people and children, aligned with Solar's identity. This project offers a great opportunity to include guided tours of the factory, generating strong community engagement.

Work Plan - Tarumã-Açu Basin Plan: Solar is currently part of the technical team developing the Tarumã-Açu Basin Plan (GOTA). This will help us raise awareness of important issues in the target area, such as basic sanitation and irregular settlements near the factory.

**1.5.2** Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.





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Attached Documents:

3 Grants:

- Water Resource Use Permit 416-2021, valid for 5 years, until December 2026, for effluent discharge (industrial and domestic wastewater treatment). 24 hours a day.
- Water Resource Use Permit 436-2021, valid for 5 years, until December 2026, for groundwater abstraction via tubular well. 16 hours a day.
- Water Resource Use Permit 455-2021, valid for 5 years, until December 2026, for groundwater abstraction via tubular well. 18 hours a day.

Other licenses and attached documents relevant to Solar Manaus' activities:

- Procedure for Managing Legal Requirements and Other Requirements
- Operating License 044.91-27
- Fire Department License AVCB
- Authorization from CNEN National Nuclear Energy Commission to operate Fixed Nuclear Meters, using radiation sources to control industrial processes.
- Health Permits Outpatient Clinic, Cafeteria, and Factory.
- List of Legal Requirements relevant to Solar Manaus' activities: LIRA\_Geral\_2025.xlsx
- Operating License Certificate for the use of chemical products from the Brazilian Federal Police and request for renewal.
- Declaration Customary Law.

1.5.3

The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.

Q Obs.

#### Comment

**Attached Documents:** 

Chapter 5 - Target Area Characterization.pdf

Figures 10 and 11 from the Study conducted by Antea Group.

The Water Balance is presented in Chapter 5 of the Target Area Characterization Document, prepared by Antea Group Consulting, on pages 11 to 16.

The availability of surface water resources is presented on pages 9 to 11.

The document from Antea Group dates from July, 31st 2022.

It is partially quantified, but there is no more recent data to complement the aquifer analysis, which is a problem highlighted by Solar Manaus, since the unit uses groundwater for industrial and domestic supply.

The document indicates that the region is not experiencing water shortages (as of 2021). In Manaus, the dry season generally occurs between July and September. During this period, the rivers begin to recede, and the banks that were submerged during the rainy season become visible.

The 2023 drought was considered the worst in history, with record low river levels. In 2024, the situation remained critical, with rivers such as the Negro and Solimões reaching historically low levels.

There is no updated data on these events.

An observation will be recorded regarding this Indicator.

1.5.4

Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.





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Comment

Documents attached: technical documents relate to research and studies conducted in the target area, seeking to characterize the quality of the Tarumã-Açu River Basin, in addition to the work conducted by Antea Group Consulting.

The following are some conclusions worth noting:

- Antea Group document, Chapter 5, Target Area Characteristics, presents on page 8 the qualitative characterization of the Target Area Aquifer, the Alter do Chão Aquifer. Page 9 projects that groundwater will increasingly contain contamination from surface water sources due to untreated sewage from the city of Manaus. There are challenges and threats related to the poor water quality of the city of Manaus due to the lack of sewage treatment in the city. The same study contains the quality identification on pages 9 and 10 for surface water.
- SOARES, 2025, contains data on the Tarumã-Açu Stream for the years 2022 and 2023 during the region's rainy and dry seasons, on page 67. Conclusions follow: "The results of the analyses carried out at sampling station A throughout the monitoring period reveal significant variations in water quality, reflecting the dynamics of the aquatic environment and possible external influences. Turbidity, which averaged 43.74 NTU and fluctuated between 22.58 NTU and 69.7 NTU, was one of the parameters with the greatest variations over the analyzed period. The peak recorded in December 2022, at 69.7 NTU, demonstrates a relationship between increased surface runoff and sediment transport, a common phenomenon during periods with higher precipitation in Manaus. The water pH remained relatively stable throughout the analyzed period, ranging between 6.24 and 6.62, indicating a slight Acidity. According to CONAMA Resolution 357/2005, for water bodies classified as classes 1 and 2, the pH must be between 6.0 and 9.0. The observed average of 6.44 falls within these parameters, indicating that, regarding this criterion, the water from station A presents a quality compatible with the established standards.

However, when comparing these values with Amazonian literature, a discrepancy is observed in relation to the natural characteristics of the rivers of the Guiana Shield, such as the Negro River and its left-bank tributaries. According to Silva (2013), these rivers are predominantly acidic to slightly acidic, with a pH between 4.6 and 6.5. Therefore, the values recorded at station A suggest a different condition, possibly influenced by autochthonous (local) factors that mitigate the typical acidity of the waters of this region.

When analyzing dissolved oxygen (DO), an average of 4.47 mg/L is observed, with a worrying reduction to 1.83 mg/L in May 2023. Dissolved oxygen is essential for aquatic life, and CONAMA Resolution 357/2005 determines that, for class 1 and 2 waters, DO must be maintained above 6.0 mg/L. Therefore, the results obtained at station A indicate a possible change in water quality during certain periods, which could be a sign of organic contamination or low water flow renewal, directly affecting the region's aquatic fauna and flora.

The electrical conductivity of the water showed considerable variations throughout the analyzed period, ranging from  $64.33~\mu\text{S/cm}$  to  $245~\mu\text{S/cm}$ . The peak recorded in August 2022 may be related to a higher concentration of dissolved ions, possibly resulting from anthropogenic activities or the runoff of substances present in the soil. This increase in electrical conductivity, as well as in total dissolved solids (TDS), suggests a process of pollution by dissolved substances, reflecting the influence of Human impacts on water quality.

The water temperature ranged from 26.2°C to 31°C, with an average of 27.42°C. This increase in temperatures recorded in October 2022 may be associated with increased solar radiation and decreased rainfall, which directly influences other parameters, such as dissolved oxygen. Since warm water tends to retain less oxygen, the reduction in DO observed during the same period may be a consequence of this natural phenomenon. CONAMA Resolution 357/2005 does not specify direct limits for the temperature variable, but recognizes that significant changes in temperature can affect aquatic fauna and flora, making it necessary to closely monitor this parameter.

Given the above, the results indicate seasonal dynamics in water quality, with variations influenced by natural factors, such as precipitation and temperature, and by possible

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anthropogenic interference. Turbidity and electrical conductivity demonstrate a correlation with periods of greater precipitation and surface runoff, reflecting the influence of human activities and climatic conditions.

The reduction in dissolved oxygen, in turn, raises concerns about the quality of the aquatic environment, suggesting that, despite conservation efforts, water quality management in the region still requires attention to avoid greater impacts. Applying the parameters of CONAMA Resolution 357/2005 is essential to monitor and mitigate these impacts, ensuring the health of aquatic ecosystems and the well-being of the population that depends on these resources. However, this resolution does not adapt to the characteristics of the rivers and water bodies in the Amazon region.

Water quality at Station B showed significant variations throughout the analyzed period, reflecting the seasonal dynamics of the Amazon region. These variable patterns demonstrate the strong influence of the hydrological cycles existing in the Rio Negro basin, as described by Sioli (1985). The transition between dry, flood, and low-water periods, proposed by Bittencourt and Amadio (2007), directly influences aspects such as turbidity, oxygenation, and dissolved solids concentration, resulting in water quality standards that vary according to the season. Therefore, it is essential to consider these natural changes when monitoring the quality of the region's water resources, especially when compared to the parameters established by CONAMA Resolution 357/2005, which defines quality standards for different water classes",

1.5.5 Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.





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Comment Attached Documents:

Survey of Off-Site Environmental Protection Areas (AIRAs) – Solar Standard.xlsx

Off-Site Environmental Protection Areas (AIRAs).jpg

Photos 7 to 20 - Visit do External IWRA during the Audit (Marina do Davi)

External AIRAs listed by Solar Manaus:

- Parque das Tribos Indigenous Community
- · Musa (Amazon Museum)
- Passarinho Creek
- Davi Marina
- Sumaúma State Park (APA)
- Left Bank of the Negro River Tarumã Açu/Tarumã Mirim Sector (APA)

The Comments Column (Column H) of the attached Spreadsheet lists sources of information that Solar Manaus used to support the IWRA Assessment (Columns F and G).

During the Audit, a visit was made to the Davi Marina IWRA, located approximately 20 km from the Unit. Photos 7 to 20 were taken during the boat trip.

Solar Manaus participates in annual cleanup campaigns on the Tarumã-Açu River that bring together other stakeholders from the River Basin. It was evident that there are many floating vessels along the Tarumá-Açu and Negro Rivers, many of which lack regulatory approval from the appropriate agencies to operate in the region.

A working group was created by the Tarumá-Açu River Basin Management Committee, of which Solar Manaus is a member, which aims to address and improve aspects related to cleanliness, area protection, and the regulation of economic activities in the region.

The region visited is an important access point for Manaus residents to nearby beaches and is a major tourist attraction for the city. There are also riverside communities living in the region, working in Manaus, and using the vessels as transportation for this entire population.

A floating hotel on the riverbanks, a floating gas station to fuel the vessels, a health center located on the banks of the Marina, several floating vessels that serve as restaurants and bars for the locals' leisure, floating houses closer to the riverbanks, and solid waste collection sites were also highlighted.

In places where there is a greater concentration of vessels and boats of various sizes, water contamination by oily residues is visible.

**1.5.6** Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.



Comment Atta

Attached files:

1.5.6 Water Infrastructure of the Target Area.xlsx MAPA - Manaus Municipal Sanitation Plan.pdf SEMULSP - 2023 Circumstantial Activity Report.pdf

Identified Water Infrastructures: Parque das Tribos Water Supply System Water Drainage Sewage Treatment Plant

The following fields are included in the assessment:

Age; Population Served; Comments; Main Problems; Potential Exposure to Extreme Events; Status.

**1.5.7** The adequacy of available WASH services within the catchment shall be identified.



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#### Comment Attached files:

The same files have been attached as per Indicator 1.5.6, which addresses Manaus' infrastructure with sewage collection networks in the target area and wastewater treatment plants.

#### Other attached files:

- SVA\_BNB Manaus 2022.pdf, item 5.3 contains a description of the adequacy percentage of treated water supply and sewage treatment for the City of Manaus.
- Map showing the location of UBS (Basic Health Units) and USF (Family Health Units) in the Target Area.
- WASH map showing the location of CAIC (Comprehensive Child Care Center), Hospital, Maternity Ward, SPA (Emergency Care Service), and UPA (Emergency Care Unit) in the Target Area.
- Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.
- **1.6.1** Shared water challenges shall be identified and prioritized from the information gathered.

Q Obs.

#### Comment Attached Document: 1.6.1 Shared Challenges.xlsx

DSF01 Projected groundwater use data indicate a drawdown of the aquifer by 2040.

DSF02 The sanitation rate of the target area is approximately 12.5%.

DSF03 Illegal occupations were identified in an area near the discharge point for treated effluents of BNB Manaus.

DSF04 The receiving body of Solar Manaus' effluent is losing its dilution capacity.

Four challenges were identified in the target area. Mitigation priorities were established in Column F of the attached spreadsheet.

In an interview with one of the stakeholders, an additional challenge was identified in the Basin: the increase in floating structures in the rivers. This situation is already being addressed by the Tarumã-Açu River Water Resources Management Committee, of which Solar Manaus participates and is part of GOTA working group, created by the Committee to address this issue.

An observation was recorded.

1.6.2 Initiatives to address shared water challenges shall be identified.





#### **Alliance for Water Stewardship (AWS)**

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Comment Attached Documents:

1.6.2 Opportunities and Savings.xlsx

Tarumã-Açu Initiatives.pdf

Shared Challenges/Opportunities:

DSF01 Projected groundwater use data indicate a drawdown of the aquifer by 2040 / -

Increased water resource availability for the unit and community.

DSF02 The sanitation rate of the target area is approximately 12.5% / - Improved water quality

(lower organic load); - Strengthened ESG actions with support for local infrastructure. DSF03 Illegal occupations were identified in an area near the discharge point for treated effluents from Solar Manaus / - Preservation of water recharge areas and water banks; - Reduction in the risk of contamination of the collection source; - Partnerships with

conservation and environmental education communities.

DSF04 The factory's effluent receiving body is losing its dilution capacity. / - Improve water

quality; - Ensure continued use of the discharge point.

Existing initiatives in the Tarumã-Açu River Basin were identified in the document "Tarumã-Açu Initiatives.pdf" and linked to the respective challenges identified above.

1.7 Understand the site's water risks and opportunities: Assess and

prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues

and future risk trends identified in 1.6.

1.7.1 Water risks faced by the site shall be identified, and prioritized, including

likelihood and severity of impact within a given timeframe, potential

costs and business impact.

Comment Attached Document: 1.7 Water Risks and Opportunities.xlsx

8 Risks were identified/prioritized, with an assessment of impact severity, potential mitigation costs, and business impacts:

•

RSC01 The unit does not have a static and dynamic monitoring procedure for well levels

RSC02 The unit does not have an updated stakeholder engagement plan RSC03 The unit does not have a supplementary or backup supply source

RSC04 The unit does not have an influence test between wells RSC05 The unit does not have an environmental liability study

RSC06 The chemical exclusion zone for well 1 is not properly respected

RSC07 The management of water resource issues is carried out in a decentralized manner at

the unit

RSC08 Current location of the receiving body (irregular occupation by the population, making

access to the area for collection difficult and with accumulation of garbage)

**1.7.2** Water-related opportunities shall be identified, including how the site

may participate, assessment and prioritization of potential savings, and

business opportunities.

Comment Attached document: 1.7 Water Risks and Opportunities.xlsx

The opportunities were mapped in the attached file (same risks identified in Indicator 1.7.1),

with a description of the potential savings and opportunities for the business.

**1.8** Understand best practice towards achieving AWS outcomes:

Determining sectoral best practices having a local/catchment, regional,

or national relevance.

1.8.1 Relevant catchment best practice for water governance shall be

identified.



Yes

Yes

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Comment Attached file: 1.8\_Good Practices.xlsx

The best practices linked to Good Water Governance defined by Solar Manaus are:

BP01 Have a Water Resources Management Team at the Unit BP02 Participate in the Quarterly Tarumã-Açu River Basin Committee BP03 Keep the Unit's Business Risk Assessment (IMCR) up to date

BP08 Address sanitation issues and other shared challenges with the responsible agencies

and monitor the progress of related projects.

**BP18 Have Zero Waste Certification** 

BP19 Have ISO 14001 Certification (Environmental Management)

1.8.2 Relevant sector and/or catchment best practice for water balance (either

through water efficiency or less total water use) shall be identified.

Yes

Comment Attached file: 1.8\_Good Practices.xlsx

The best practices linked to the Water Balance defined by Solar Manaus are:

BP11 Regularly monitor water consumption

BP12 Daily control of water and effluent collection and disposal volumes

BP20 Automation of valve drive system lubrication BP21 Interlocking of Line 07 Track Lubrication System BP22 Reduction of pressure of the washer's final jets

BP23 Optimization of CIP water recovery

BP24 Reuse of condensate water to irrigate the garden

BP25 Redirection of rinser nozzles

1.8.3 Relevant sector and/or catchment best practice for water quality shall be

identified, including rationale for data source.

Yes

Comment Attached file:

1.8 Good Practices.xlsx

The following are good practices related to Water Quality defined by Solar Manaus:

BP09 Potability analysis of source and reservoir water according to frequency and parameters

BP10 Cleaning and sanitizing of sources by a specialized company

1.8.4 Relevant catchment best practice for site maintenance of Important

Water-Related Areas shall be identified.

Q Obs.

Comment Attached file: 1.8\_Good Practices.xlsx

The best practices linked to IWRA defined by Solar Manaus are:

BP07 Planting Seedlings within the Solar Manaus Unit

BP13 Assessment of the Important Water Area within the Unit (AIRA ON SITE)

An observation will be recorded:

Good practices related to this Indicator must also evaluate the practices adopted by other Institutions in the Basin or Region and not only the practices carried out on the site.

1.8.5 Relevant sector and/or catchment best practice for site provision of

equitable and adequate WASH services shall be identified.



WSAS



# **Alliance for Water Stewardship (AWS)**

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Comment Attached file: 1.8\_Good Practices.xlsx

The best practices linked to WASH defined by Solar Manaus are:

BP04 Breastfeeding Room for Solar Mothers

BP05 Adaptation of specific areas for showers (female/male)

BP06 Acquisition of new lockers and adaptation of the common area

BP14 Conduct quality analyses of the receiving water body according to defined parameters

BP15 Conduct Environmental Education Training (Employees) BP16 Participate in water events in communities/schools

BP17 Conduct multi-day river cleanup campaigns



# **Alliance for Water Stewardship (AWS)**

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2	STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan	
2.1	Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.	
2.1.1	A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:  - That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes  - That the site implementation will be aligned to and in support of existing catchment sustainability plans  - That the site's stakeholders will be engaged in an open and transparent way  - That the site will allocate resources to implement the Standard.	
Comment	Attached document 1087818055_Carta compromiso.pdf  Public Source: https://www.solarbr.com.br/noticia/7367/solar-coca-cola-firma-carta-de-compromisso-com-alli ance-for-water-stewardship  The Letter meets the Indicator requirements and is signed by the General Director.	
2.2	Develop and document a process to achieve and maintain legal and regulatory compliance.	
2.2.1	The system to maintain compliance obligations for water and wastewater management shall be identified, including:  - Identification of responsible persons/positions within facility organizational structure  - Process for submissions to regulatory agencies.	



### **Alliance for Water Stewardship (AWS)**

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#### Comment

Added document: SOL-PN-SGI-SG-08R08 – Legal Requirements Management and other requirements.pdf.

The unit uses a legal requirements manager in the Verde Gaia system in the SOGI Module. The departments have specific responsibilities according to the application area. Item 5.5 defines the Responsibilities for Legal Systems in SOGI-LIRA.

Item 5.18 of the Procedure indicates that the licenses are in the "Licenses" Module.

The Company provided the License List, as per the FMAO Licenses.xlsx document. Additional documents containing the analytical control plans with the ETE control parameters were provided.

The attached document (Water Management Strategy rev. 01), under GOVERNANCE, lists all responsible individuals (roles) in the various areas of the plant and their respective actions related to water resource management at Solar Manaus.

The Plant's Industrial Manager is responsible for ensuring compliance with legal requirements related to water at the Solar Coca-Cola facility (Manaus plant).

For communications with the Agencies, formal protocols and email are used. Solar Manaus provided a document containing a statement regarding the submission process to environmental agencies, as follows:

Manaus, July 20, 2025

**DECLARATION** 

Subject: Official Communication with Public Agencies

BRÁSIL NORTE BEBIDAS S.A., an industrial company headquartered at Av. Torquato Tapajós, No. 5,800 – Colônia Terra Nova, Manaus - AM, registered with the CNPJ (National Registry of Legal Entities) under No. 34.590.315/0001-58, declares that it conducts all official communication with public agencies through formal protocols and institutional emails, ensuring the registration, traceability, and verification of the information sent and received. This procedure ensures transparency, integrity of information, and compliance with applicable legal and administrative requirements. Sincerely,

Ana Karoline Santos Rocha Environmental Analyst

The Company provided examples of electronic communication with the environmental agency:

- Document PROTOCOL Completion of tank installation.pdf.
- Example of email communication with IPAAM (Amazonas Environmental Protection Institute, the Amazonas State Environmental Agency).
- Document (2500.2021) Request to change industrial effluent discharge rate filed in June 2025.
- 2.3 Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.
- 2.3.1 A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.





#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### Comment

#### Attached document:

2.3.1. FMAO Water Management Strategy 2025 REV00.pdf

#### Mission

To promote the responsible and efficient use of water in all unit operations, contributing to local and regional water sustainability. We strive to strengthen water governance through transparent, safe actions aligned with the AWS principles, ensuring the present and future water supply for the company, the community, and the environment.

#### Vision

To be recognized as a benchmark in responsible water management in the region, with operations aligned with water sustainability standards. We achieve operational excellence, promote a positive impact on the water resources of the Tarumã-Açu basin, and serve as an example of industrial innovation and environmental commitment.

#### Objectives

To ensure the effectiveness of our strategy, a Sustainable Water Management Plan was created, defining the site's objectives:

- 1. Participate in forums and initiatives that strengthen governance in water resource management, ensuring transparency, participation, and accountability in all water-related actions.
- 2. Act in full compliance with environmental and water legislation.
- 3. Establish channels for engagement and communication with stakeholders.
- 4. Conduct a survey of the unit's indirect water use, aiming to understand and quantify the impact of secondary activities on water consumption.
- 5. Ensure good water quality at all stages of the production and distribution process.
- 6. Implement effective actions that contribute to a sustainable water balance, monitoring and controlling water use efficiently, balanced, and responsibly.
- 7. Identify, protect, and preserve important water-related areas, such as springs and environmental protection zones.
- 8. Promote access to quality drinking water for all.
- 9. Ensure access to basic sanitation and hygiene for everyone on the site.

#### **2.3.2** A water stewardship plan shall be identified, including for each target:

- How it will be measured and monitored
- Actions to achieve and maintain (or exceed) it
- Planned timeframes to achieve it
- Financial budgets allocated for actions
- Positions of persons responsible for actions and achieving targets
- Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.





#### **Alliance for Water Stewardship (AWS)**

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Comment Attached Documents:

2.3.2. Updated Sustainable Management Plan Project Date - Closing.pdf

The WSP has nine objectives:

- 1. Participate in forums and initiatives that strengthen governance in water resource management, ensuring transparency, participation, and accountability in all water-related actions.
- 2. Act in full compliance with environmental and water legislation.
- 3. Establish channels for engagement and communication with stakeholders.
- 4. Conduct a survey of the unit indirect water use, aiming to understand and quantify the impact of secondary activities on water consumption.
- 5. Ensure good water quality at all stages of the production and distribution process.
- 6. Implement effective actions that contribute to a sustainable water balance, monitoring and controlling water use efficiently, balanced, and responsibly.
- 7. Identify, protect, and preserve important water-related areas, such as springs and environmental protection zones.
- 8. Promote access to quality drinking water for all.
- 9. Ensure access to basic sanitation and hygiene for everyone on the site.

To achieve the defined objectives, 29 actions are specified.

Location in the Sustainable Management Plan - WSP spreadsheet of the requirements of 2.3.2 for the defined actions:

- How it will be measured and monitored: columns M, N, O.
- Actions to achieve and maintain (or exceed) it: columns F, G.
- Planned timeframes to achieve it: columns K, L.
- Financial budgets allocated for actions: column J.
- Positions of persons responsible for actions and achieving targets: column I.
- Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes: columns A, Q R.

Solar Manaus' considerations regarding the importance of including certain actions in its first Sustainable Management Plan:

- 1.1 Ensure the Sustainable Water Management Plan is updated at least annually and/or whenever necessary: This is necessary, as Solar Manaus is initiating the Sustainable Water Management process, which is new to the team.
- 2.1 Validate the unit's risk assessment spreadsheet (IMCR) annually: The spreadsheet is evaluated annually based on occurrences and in accordance with the unit's strategy. It is important to maintain the WSP so that issues involving water management are always addressed.
- 2.2 Validate the Legal Requirements Management system monthly and ensure 100% of the requirements are assessed: The unit has a goal within the indicator management program and believes it is appropriate to include it in the WSP, at least initially.
- 3.1 Ensure the stakeholder engagement plan is updated at least annually and/or whenever necessary: This was one of the Unit's identified risks, and Solar Manaus believes it is important to include this item in the WSP at the beginning of the Journey.
- 5.1 Ensure 100% of the raw water sampling scheduled in the schedule, in accordance with legal and internal requirements; and
- 5.2 Ensure 100% compliance with legal and internal water analysis parameters: Solar Manaus must comply with parameters linked to legislation and Coca-Cola's KORE parameters, which

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# **Alliance for Water Stewardship (AWS)**

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are more stringent than the legal ones.

- 5.3 Ensure 100% compliance with legal water analysis parameters: 5.3.1 Maintain microbiological analyses of water sources; and 5.3.2 Maintain physical and chemical analyses of water sources: Solar Manaus requires specific precautions based on its production process.
- 5.4 Ensure 100% cleaning and sanitization of sources periodically: 5.4.1 Perform cleaning and sanitization of sources with a specialized company: This action is included in the WSP to ensure that more qualified companies perform the activities effectively (more selective hiring process).
- 6.2 Ensure 100% daily recording of water collection and treated effluent discharge volumes: important because Solar Manaus considers this necessary for adjusting the Water Balance.
- 7.1 Ensure 100% compliance with legal and internal effluent analysis parameters: 7.1.1 Maintain effluent quality analysis within the parameters: Solar Manaus considers this necessary, as they must meet Coca-Cola's KORE parameters, which are more stringent than the legal ones.
- 8.1 Ensure 100% of the legal parameters for the analyses of the receiving body: 8.1.1 Maintain the quality analyses of the receiving body according to parameters: Solar Manaus considers it important to monitor what happens in the receiving body, as there is a tendency for the results to worsen, considering the other sources of sewage disposal that occur on site.
- 2.4 Demonstrate the site's responsiveness and resilience to respond to water risks
- **2.4.1** A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.



Comment

Risk assessed by Solar Manaus, according to indicator 1.7.1, that requires actions developed in coordination with relevant public-sector and infrastructure agencies is Risk Number 3, as stated in the document.

RSC03: The unit does not have a supplementary or backup supply source.

This risk involves the Água de Manaus Concessionaire.

#### Attached documents:

WMP BNB Manaus 2022 (2nd quarter 2025).xlsx

Contains actions related to the Água de Manaus Concessionaire.

The plan is up to date, with pending actions to be executed according to the Progress Description field.

#### Contingency Plan MAO ver 00.xlsx

Plan items involve Manaus Water Concessionaire, which was contacted. Document evidence includes Manaus Water emails and backup source emails.

Controlled copy of the Unit's ERP (Emergency Response Plan): Contains the unit's actions related to emergencies identified in other documents (including water issues and natural events) but was not written with the involvement of the public sector or infrastructure agencies. Page 43 lists the telephone numbers of the public sectors to be involved for communication in the event of incidents covered by the ERP.

Incident Management and Crisis Resolution (IMCR) Document:

Solar Manaus has an IMCR (Incident Management and Crisis Resolution) team, which must be activated in the event of contact with government agencies. Contact should be made through this team. Each Unit has its own team. In the event of simulations involving external entities, the IMCR must be involved.



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

3	STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts	
3.1	Implement plan to participate positively in catchment governance.	
3.1.1	Evidence that the site has supported good catchment governance shall be identified.	<b>⊘</b> Yes

Comment Attached documents:

Minutes of the regular and extraordinary meetings of the Tarumã-Açu River CBH were presented in 2022, 2023, 2024, and 2025.

Photographic records of the Tarumã-Açu River CBH RO in 2025 (March and June).

Photographic record of participation in other events in the Basin and at the Unit related to good governance and WASH:

- Roundtable on the 1st Amazon Festival of Sustainable Entrepreneurship, held at the Federal University of Amazonas
- Event called "My Future, My Voice: Water Mission" held at the Zilda Arns Neumann C.E.T.I School
- Presentation on the 2024 Annual Report on Water Resources Management in Amazonas
- Lecture on Emerging Pollutants in the Context of the Amazon River A Fragile and At-Risk System
- Internal events at Solar Manaus: World Water Day SOLAR and Correct Hand Cleaning Action SOLAR.

Brief summary of participation in the CBH meetings of the Tarumã-Açu River:

- Solar Manaus raised the issue of basic sanitation in the basin, but the Committee continues to discuss the issue of floating boats in the basin.
- The Committee requested support for other companies to participate in the Committee meetings, and Solar Manaus invited Innova to join and participate. Innova requested contact information so they can submit a request to participate.
- The Committee currently wants to discuss the Basin Plan and its progress. Solar Manaus was invited to join the GOTA WhatsApp Group, a technical team dedicated to advancing the Basin Plan, with a greater focus on the issue of irregular floating vessels in the region's rivers.

Evidence of internal meetings held by Solar Manaus and the EGRH (Water Resources Management Team) was presented. The minutes of 2025 EGRH Quarterly Meetings, March 25 and June 25, were added.

Other actions are included in compliance with AWS indicators, as per the records presented in the Audit (Actions 1.1.1, 2.1.1, 2.2.1, 3.1.1, 3.1.2, 4.1.1 of the Sustainable Water Management Plan).

3.1.2 Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.





## **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Comment

Attached document: Declaration of Customary Rights.pdf Map showing the location of indigenous peoples in the Basin.

Manaus, July 9th, 2025.

**DECLARATION** 

Subject: Customary Rights

BRASIL NORTE BEBIDAS S.A., an industrial company headquartered at Av. Torquato Tapajós, No. 5,800 – Colônia Terra Nova, Manaus, AM, registered with the CNPJ (National Registry of Legal Entities) under No. 34.590.315/0001-58, fully recognizes and respects the customary rights existing in the State of Amazonas, understood as those based on traditional practices and customs, historically exercised by Indigenous peoples, riverside communities, extractivist communities, quilombolas, and other traditional populations. At the state level, these rights include, among others:

- Traditional territorial rights: occupation and use of traditionally inhabited areas, even without formal title, recognized by the Federal Constitution and by international treaties ratified by Brazil:
- Natural resource use rights: artisanal fishing, extractive collection of forest products, subsistence hunting, and water use for human consumption and small-scale production, as long as carried out in accordance with customs and current legislation;
- Cultural and spiritual rights: preservation of and access to sacred sites, ritual practices, knowledge, and traditions associated with the territory and natural resources;
- Community management and stewardship rights: application of community-specific standards for the sustainable use of resources, recognized by competent agencies and through instruments such as Use Plans or Fishing Agreements.

The unit reaffirms its commitment to complying with applicable federal, state, and municipal legislation, respecting traditional ways of life, ensuring the sustainable use of natural resources, and promoting harmonious relations with local communities. Sincerely,

Ana Karoline Santos Rocha Environmental Analyst

The statement is used if any Stakeholder requests it.

Develop a gradual approach plan, in partnership with public and social institutions that already work with Indigenous peoples, to understand their perceptions regarding water use, is part of the WSP of the Unit.

Monitoring controls for flow and water quality in the Basin were attached to the indicator (annual water quality and effluent generation monitoring files and file 1.3.3 Variations in water use.xlsx) as measures reported by Solar Manaus to respect the water rights of others in the Basin.

- 3.2 Implement system to comply with water-related legal and regulatory requirements and respect water rights.
- **3.2.1** A process to verify full legal and regulatory compliance shall be implemented.





#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Comment Attached Documents:

SOL-PN-SGI-SG-08R08 - Management of Legal and Other Requirements.pdf

Lira Geral 2025-08-09 10-10-09 08 2025 10 10 43.xlsx

FMAO Licenses.xlsx

General Report Brazil North Beverages Manaus 2025.pdf NC Report Brazil North Beverages Manaus 2025.pdf

ACL SSOMAGESAQL Certificate 2025.pdf

Solar Manaus uses a legal requirements manager in the Verde Gaia system in the SOGI Module. Each area has specific responsibilities depending on the area of application.

Formal protocol records and emails are used for communication with environmental agencies.

A list of licenses applicable to the Unit is attached.

Solar Manaus conducts a Legal Requirements Audit. Attached are the reports of the Audit carried out in 2025.

3.2.2 Where water rights are part of legal and regulatory requirements,

measures identified to respect the water rights of others including

Indigenous peoples, shall be implemented.

**₹**Yes

Comment Attached Documents:

Analytical Controls of Treated Effluents from 2021 to 2025. Analytical Controls of Drinking Water from 2021 to 2025.

1.3.3 Variations in Water Use.xlsx

FMAO Licenses.xlsx

General Report: Brazil North Beverages Manaus 2025.pdf NC Report: Brazil North Beverages Manaus 2025.pdf

ACL SSOMAGESAQL Certificate 2025.pdf

There are no requirements in the grants or operating licenses requiring respect for stakeholders' rights of use or access to water use related to the site.

Documents submitted by Solar Manaus demonstrate compliance with licensing and legal requirements for the years 2021 to 2025 for effluents and 2021 to 2025 for drinking water.

The 2025 legal requirements audit report mentions the obligation to state on product labels that plastic bottles are not biodegradable.

- 3.3 Implement plan to achieve site water balance targets.
- **3.3.1** Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.

Q Obs.



## **Alliance for Water Stewardship (AWS)**

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#### Comment Attached documents:

- Water projects.pdf (updated with project completion dates).
- AWS presentation.pptx
- Updated Sustainable Management Plan

What is included in the Sustainable Management Plan regarding Solar Manaus' Water Balance:

Item 6. Implement effective actions that contribute to a sustainable water balance, monitoring and controlling water use in an efficient, balanced, and responsible manner. 6.1 Reduce water consumption to 1.39 liters per liter of beverage produced by December 2025

6.1.1 Monitor water consumption regularly and take action as needed

6.1.2 Follow the action plan regarding the water indicator, as per the PGI's PAC

6.2 Ensure 100% daily recording of water withdrawal and treated effluent discharge volumes 6.2.1 Monitor withdrawal and discharge volumes daily

The AWS.xlsx Presentation provides information on monitoring the actions presented in Solar Manaus' WSP.

Solar Manaus' main considerations regarding the indicators:

- The water use index through 2024 represented a 44.4% improvement in efficiency from 2017, making us one of SOLAR's benchmark units in water efficiency.
- WUR for 2025 is 1.39 L/L. The value up to August 2025 is above the target, at 1.60 L/L.
- Solar Manaus reports that the target value for 2025 will not be achieved for the following reasons:
- The increase in water consumption in 2025 compared to 2024 is related to operational and structural factors: increased number of CIPs:
- The number of cleaning procedures (CIP) was intensified to improve the microbiology indicator, increasing DRP, which resulted in higher water consumption in the processes.
- Water network CIP: The water network began to undergo more frequent cleaning, with up to 8 monthly cycles, directly contributing to the increase in consumption.
- ETA increases: Increased backwash and carbon filter dechlorination cleaning processes, with a 1000% increase in the collection process. Water recovery at the suspended WTP: The shutdown of the water recovery system at the Treatment Plant (WTP) reduced reuse, increasing dependence on fresh water.

The Action Plan for monitoring the activities defined for WUR control in 2025 is defined on Slide 9 of the presentation.

Recorded observation: The WSP Target - item 6.1: Reduce water consumption per liter of beverage produced (WUR) to 1.39 by December 2025 will not be achieved, according to information from Solar Manaus. It will be reassessed for inclusion in 2026.

3.3.2 Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.





#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Comment Attached Document: 1.3.3 Variations in Water Use.xlsx

Solar Manaus defines annual targets to improve the site's water use efficiency.

Sheet 1.3.3 Variations in Water Use is presented, featuring the following data and graphs for the period 2020 to 2025:

Well 1 + Well 2 Graph: Represents the sum of the volume of water abstracted by the two wells over the years.

Well 1 Graph: Shows the consumption of abstracted water in relation to the permit over the vears.

Well 2 Graph: Shows the relationship between the volume of water abstracted by Well 2 and the limit established by the permit over the years.

Effluent Graph: Compares the volume of effluent discharged with the target established by the permit over the years.

Production Chart: Displays the monthly volume of beverage produced during the year, used to calculate the WUR indicator.

m³/m³ Chart: Shows the ratio between the volume of water consumed and the volume of beverage produced (water efficiency indicator).

Total Water Consumption Chart: Displays the total water consumption from wells.

3.3.3 Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.



Comment

Attached file: Non-reallocation of water.pdf.

Solar Manaus submitted the following declaration regarding the non-reallocation of water for cultural, social, and/or environmental purposes.

Manaus, July 9, 2025 DECLARATION

Subject: Non-reallocation of water for cultural, social, and/or environmental purposes BRASIL NORTE BEBIDAS S.A., an industrial company headquartered at Av. Torquato Tapajós, No. 5,800 – Colônia Terra Nova, State of Amazonas, registered with the CNPJ (Brazilian Corporate Taxpayer Registry) under No. 34.590.315/0001-58, hereby declares, for all applicable purposes, that it does not reallocate water for cultural, social, and/or environmental purposes in its operations. We emphasize that all water resource withdrawals and uses at this facility are strictly focused on production and administrative processes, complying with current environmental legislation and authorizations granted by the appropriate agencies.

This being the case for now, we remain available for any further clarification. Sincerely,

Ana Karoline Santos Rocha Environmental Analyst

- 3.4 Implement plan to achieve site water quality targets
- **3.4.1** Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.



WSAS



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### Attached Documents: Comment

Wastewater Treatment Plant (ETE) BNB Matrix Plan for 2021, 2022, 2023, and 2024.xlsx Wastewater Treatment Plant (ETA) Monitoring Spreadsheets for 2021, 2022, and 2023

CEP Monitoring Data for 2024 and 2025 Analytical reports attached in item 1.3.4 Presentation of Evidence of Good Practices Legal Requirements Audit Documents Updated Sustainable Management Plan

Actions included in the Updated Sustainable Management Plan and their respective evidence of compliance:

5. Ensure good water quality at all stages of the production and distribution process.

5.1 Ensure 100% of the raw water sampling scheduled in the schedule, in accordance with legal and internal requirements.

5.1.1 Maintain raw water quality analyses

Analytical Reports for Raw Water attached in item 1.3.4

Legal Requirements Audit Documents

5.2 Ensure 100% compliance with legal and internal parameters for water analysis

5.2.1 Maintain potability analyses of source and reservoir water according to frequency and parameters

WTP Monitoring Spreadsheets and CEP Monitoring Data

Legal Requirements Audit Documents

5.3 Ensure 100% compliance with legal parameters for water analysis

5.3.1 Maintain microbiological analyses of water sources

5.3.2 Maintain physical and chemical analyses of water sources

Analytical Reports attached in item 1.3.4

Legal Requirements Audit Documents

5.4 Ensure 100% cleaning and sanitization of sources periodically 5.4.1 Perform cleaning and sanitization of sources with a company specialized

Page 9 of the Evidence of Good Practices Presentation.

3.4.2 Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.





#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### Comment Attached documents:

Pollution Load Declarations for 2022, 2023, and 2024 (submitted to IPAAM at the beginning of 2023, 2024, and 2025).

Effluent Monitoring Spreadsheets from 2021 to 2025.

Updated Sustainable Water Plan.xlsx

Every year, Solar Manaus submits Pollution Load Declarations to the Amazonas State Environmental Agency (IPAAM), detailing improvements made to its ETE and maintenance activities.

#### **ETE MAINTENANCE 2022**

For 2022, all monthly preventive and corrective maintenance was performed internally by qualified and trained personnel. In May 2022, the sand deposit was cleaned in the pre-treatment area and the sludge was removed from the final baffle.

#### ETE INVESTMENTS 2022-2023

In 2022, the ETE containment basin was expanded by 276 m³ to accommodate two 125.66 m³ sequestration tanks. The acquisition, installation, and commissioning of the tanks aimed to improve the efficiency of the effluent generated by the unit, along with the replacement of 213 m³ of anaerobic sludge in the methanization reactor and the replacement of the static screen in the equalization tank.

#### **ETE MAINTENANCE 2023**

For 2023, all monthly preventive and corrective maintenance was performed internally by qualified and trained personnel. The final baffle was cleaned in the first half of the year.

#### ETE INVESTMENTS\_2023

Fiberglass tanks were purchased to improve the efficiency of the unit's wastewater treatment, along with the replacement of 90m3 of anaerobic sludge in the methanization reactor and the installation of the diffused air aeration system.

#### ETE MAINTENANCE\_2024

For 2024, all monthly preventive and corrective maintenance was performed internally by qualified and trained personnel.

#### ETE INVESTMENTS\_2024

In 2024, the system was cleaned to improve the efficiency of the unit's wastewater treatment and replace 90m3 of anaerobic sludge.

#### DASHBOARD DATA FOR TREATED WASTEWATER IN 2024 AND 2025:

\*The number of non-KORE parameters refers to the number of parameters in the month that did not meet Coca-Cola's KORE specifications for treated effluents, which are internal parameters that are more restrictive than legal parameters.

\*\*The number of non-legal parameters refers to the number of parameters in the month that did not meet the legal specifications for treated effluents.

#### 2024:

KORE Compliance (January to December): 80% 90% 80% 70% 60% 60% 60% 70% 60% 50% 70% 70%

Annual average: 68.33%

Annual average: 100%

\*Number of Non-KORE Parameters (January to December): 2 1 2 3 4 4 4 3 4 5 3 3

\*\*Number of Non-Legal Parameters (from January to December): - 0 0 0 0 0 0 0 0 0 0 0 0

2025:

#### WSAS



## Alliance for Water Stewardship (AWS)

Audit Number: AO-001669

KORE Compliance (January to June): 69% 85% 92% 92% 85% 92%

Average: 85.90%

Legal Compliance (January to June): 100% 100% 100% 100% 100% 100%

Average: 100%

\*Number of Non-KORE Parameters: 4 2 1 1 2 1 \*\*Number of Non-Legal Parameters: 0 0 0 0 0 0

An improvement in compliance with KORE parameters (more restrictive than the law) was observed in 2025, compared to 2024.

Goal 7.1 Ensure 100% compliance with legal and internal parameters for effluent analysis 7.1.2 Map out improvement needs at the Effluent Treatment Plant to adapt to KORE parameters of the Updated Sustainable Management Plan includes actions to increase compliance with Coca-Cola's KORE Parameters, which are more restrictive than the law.

3.5 Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.

**3.5.1** Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.



Comment

Attached documents:

Updated Sustainable Water Management Plan.xlsx

Photo of Seedling Planting at the ETE

Slide with photo of on-site IWRA monitoring

SPRITE River Cleanup Action, carried out at Marina do Davi, external IWRA, in 2022 and 2023.

Goals and Actions related to IWRAs contained in the WSP:

7 Identify, protect, and preserve important water-related areas, such as springs and environmental protection zones

7.1 Ensure 100% compliance with legal and internal parameters for effluent analysis

7.1.1 Maintain effluent quality analysis in accordance with parameters

Added evidence related to effluent monitoring, Manaus Solar ETE Plans from 2021 to 2025.

7.2 Prepare an annual report on conditions related to important water-related areas

7.2.1 Implement a checklist for important water-related areas (on-site)

To be completed within the deadline, which is August 30, 2025.

A photo showing the IWRA on-site status is presented.

7.3 Ensure improved preservation of fauna and flora, in addition to contributing to their protection by planting 50 seedlings annually.

7.3.1 Plant seedlings with the involvement of unit employees.

Photo of seedling planting at the ETE in 2022, with growth evident in 2025.

Photos of new seedling plantings in 2025.

7.4 Ensure improved preservation of fauna and flora, in addition to contributing to the protection and quality of water resources at the unit, by conducting an environmental liability study every two years.

7.4.1 Conduct an environmental liability study considering the frequency defined in the Procedure.

On-time, in progress.

3.6 Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.

WSAS



## **Alliance for Water Stewardship (AWS)**

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3.6.1 Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.





### **Alliance for Water Stewardship (AWS)**

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Comment Attached Documents:

Hygiene and Maintenance Service Reports for 12 Drinking Water Reservoirs

Drinking Fountain Maintenance Reports Manaus WWTP Plans from 2021 to 2025.xlsx Photo of Solar Manaus Breastfeeding Room

Photos of participation in events at schools and universities

Spreadsheet demonstrating compliance with NR-24

Presentation on Food Safety and Hygiene Photos of Cabinets and Infrastructure

Updated Sustainable Water Management Plan

Items included in the Solar Manaus WSP related to WASH:

8 Promote access to quality drinking water for all

8.1 Ensure 100% compliance with legal parameters for analyses of the receiving water body

8.1.1 Maintain quality analyses of the receiving water body according to the parameters

8.1.2 Conduct an assessment of changes to the water body's disposal site

Evidenced according to Manaus WWTP Plans 2021 to 2025.

8.2 Promote environmental and hygiene education by participating in four water events in communities and schools.

8.2.1 Participate in water events in communities/schools and maintain evidence.

Evidenced by photos of participation in school and university events.

9 Ensure access to basic sanitation and hygiene for everyone on the website.

9.1 Promote environmental and hygiene education by conducting two annual training sessions on the topic.

9.1.1 Conduct training on responsible water use and hygiene (Employees).

Evidenced in the Food Safety Presentation - Hygiene.

9.2 Ensure that basic hygiene infrastructure is in adequate condition.

9.2.1 Check and resolve any damage to bathroom and locker room infrastructure, as well as sinks, drinking fountains, and other facilities used for employee's hygiene.

Several documents were attached to support this item, as follows:

- Sanitation and Maintenance Service Reports for 12 Drinking Water Reservoirs (According to Decree 392/97 of Manaus Municipal Health Code, sanitation of reservoirs cannot exceed a period of 6 (six) months. It is recommended that preventive maintenance is performed regularly to remove scale, monitor water quality, and check the condition of hydraulic connections and internal structures. For convenience, Solar Manaus was included in the preventive maintenance schedule; therefore, Solar Manaus will be notified in advance of the next maintenance intervention by the Sanitation and Maintenance Service Company). The last maintenance was performed in July 2025.
- Drinking Fountain Maintenance Reports (According to Decree 392/97 of Manaus Municipal Health Code, drinking fountain sanitation cannot exceed a period of 3 (three) months). The last one was held in July 2025.
- Photos of cabinets and infrastructure.

Aditional Evidences: Photo of Solar Manaus Breastfeeding and a Spreadsheet demonstrating compliance with NR-24.

Content of the interview with Sara Ruiz, Occupational Health Nurse Technician. Her main responsibilities include:

- Managing the Occupational Health Physician's schedule
- Conducting pre-employment exams, periodic exams, and annual health campaigns (white January for mental health, yellow September for emotional health, pink October for women's health, and blue November for men's health).

When asked about vaccination campaigns at Solar Manaus, Sara reported that the Influenza vaccination campaign did not take place at Solar Manaus in 2025, generally due to logistical issues with the vaccines.

WSAS



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Regarding other topics discussed, Sara stated:

- Solar Manaus has a breastfeeding room, but it is rarely used.
- They use the MDS Cuidar app, which is corporate-owned. It is used for mental health, teleconsultations with 25 specialties, and for prescriptions.
- Feminine pads: Solar Manaus does not provide sanitary pads for women. Sara reported that an employee requested them at the outpatient clinic and was unable to obtain them.
- Condoms: Solar Manaus has them, upon request.
- Health insurance plans: They offer Hapvida and Unimed (which can cover dependents, at the employee's discretion).

Unimed's plan is most commonly used by management and healthcare staff.

- They have partnership programs with Wellhub gyms, offering discounts on gym memberships for exercise.
- They offer Bradesco dental insurance.
- The highest absenteeism rates occur due to diarrhea and food poisoning. These can occur due to external food and water. Solar Manaus does not provide medication, but initial care is provided and employees are referred to a primary care unit or emergency room.
- Tests for worms are requested; if detected, medications are prescribed for the employee and his or her family. Additionally, Sara emphasizes that everyone needs to be aware and seek regular check-ups.
- 3.6.2 Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.

Q Obs.



#### **Alliance for Water Stewardship (AWS)**

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Comment Added documents:

Analytical reports contained in Indicator 1.3.4

Control spreadsheets for the SAO Manaus WWTP from 2021 to 2025.xlsx

PAC KORE-CONAMA 2025.xlsx Legal Requirements Audit Documents Map of Indigenous Peoples' Location

The aforementioned documents indicate compliance with legal analytical requirements for Solar Manaus' treated effluents and non-compliance with Coca-Cola's KORE parameters (more restrictive than legal parameters) for some requirements. These are monitored according to PAC KORE-CONAMA 2025.xlsx, which contains corrective actions when KORE parameters are not met.

There is an item in the Company's WSP to address improvements at the WWTP to meet KORE parameters (item added during the AWS Audit).

Indicator 3.4.2 reports improvements in compliance with KORE parameters in 2025, when compared to 2024. 100% of the legal requirements related to effluent discharge parameters are met by Solar Manaus.

There are no Indigenous communities near Solar Manaus. Treated effluents are discharged into Igarapé do Passarinho, with evidence of impact on the quality of the receiving water body during some months of the year. Igarapé do Passarinho receives untreated domestic sewage and other effluents from various sources and loses its dilution capacity depending on the time of year, when there is less rainfall in the region.

Solar Manaus complies with the legislation (but does not fully meet Coca-Cola's KORE parameters every month, as previously reported on Indicator 3.4.2). In months with lower flow (as per 2024, see Indicator 1.3.4) and even in 2025 (in February and April, see Indicator 1.3.4), Passarinho Stream loses its dilution capacity and receives untreated sewage (in natura), solid waste, and other effluents from the region. Solar Manaus contributes to the increase in the load of some parameters, due to the lack of dilution in the Stream.

Law No. 2,835, of October 15, 2003, of the State of Amazonas, requires the following (https://sapl.al.am.leg.br/media/sapl/public/normajuridica/2003/7290/7290\_texto\_integral.pdf): "Institutes the obligation for manufacturers of products packaged in containers using plastic or similar materials to inform consumers about the risks that improper disposal can pose to the environment."

The NC regarding this legislation was evidenced in an Ambipar Audit Report, conducted in August 2025:

"Evidence: BRASIL NORTE BEBIDAS S.A. (Norsa Manaus), registered with CNPJ (Brazilian Corporate Taxpayer Registry) no. 34.590.315/0001-58, reports that, at the moment, it does not provide direct communication to consumers regarding the environmental risks of improper disposal of plastic packaging, as provided for in specific legislation. Product labels follow standardized guidelines of the Coca-Cola system globally, which requires joint evaluation and approval with the LATAM regional office for any changes. The inclusion of information such as "the packaging is not biodegradable" is not yet present on current labels, but the topic is under corporate discussion, aiming to ensure future compliance with the legal obligation in line with company policies."

In this way, an observation will be recorded.

- 3.7 Implement plan to maintain or improve indirect water use within the catchment:
- **3.7.1** Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.



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### **Alliance for Water Stewardship (AWS)**

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Comment Attached Documents:

2.3.2 Updated Sustainable Management Plan.xlsx

1.4.1\_Input Suppliers.xlsx 1.4.2\_Service Providers.xlsx INNOVA Response.pdf Carboman Response.pdf INNOVA Visit.pdf

Communication to Supplier (Indirect Water Use) INNOVA.pdf Communication to Supplier (Indirect Water Use) Carboman.pdf

The following objective/goal/action is defined in Solar Manaus' Sustainable Management Plan:

4. Conduct a survey of the unit's indirect water use, aiming to understand and quantify the impact of secondary activities on water consumption.

4.1 Conduct a survey of indirect water use

4.1.1 Engage with input suppliers and service providers to calculate the unit's indirect water use.

For input suppliers, communications and respective feedback with suppliers located in the target area, Carboman, and Innova are attached (file 1.4.1\_Input Suppliers.xlsx). On July 18, Solar Manaus visited Innova and presented information about AWS. A photographic report of the visit is attached, showing the items discussed.

For service providers, no evidence was presented regarding communication with those located within the target area, as they use Solar Manaus' internal water, as identified in file 1.4.2 Service Providers.xlsx.

3.7.2 Evidence of engagement with suppliers and service providers, as well as when applicable actions they have taken in the catchment as a

as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be

identified.

Comment Attached Documents:

2.3.2 Updated Sustainable Management Plan.xlsx

1.4.1\_Input Suppliers.xlsx 1.4.2\_Service Providers.xlsx INNOVA Response.pdf Carboman Response.pdf INNOVA Visit.pdf

Communication to Supplier (Indirect Water Use) INNOVA.pdf Communication to Supplier (Indirect Water Use) Carboman.pdf

For input suppliers, communications and respective feedback with suppliers located in the target area, Carboman, and Innova are attached (file 1.4.1\_Input Suppliers.xlsx). On July 18, Solar Manaus visited Innova and presented information about AWS. A photographic report of the visit is attached, showing the items discussed.

For service providers, no evidence was presented regarding communication with those located within the target area, as they use Solar Manaus' internal water, as identified in file 1.4.2 Service Providers.xlsx.

Water risk assessments were conducted using two tools—Aqueduct and Water Risk Filter—for the identified services and input suppliers, as shown in the lists presented.

3.8 Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.



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Yes



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**3.8.1** Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.

Q Obs

Comment

Attached documents:

Attached are Emergency Response Plan (PAE) and Contingency Plan (MAO) rev. 00.

These plans list contact details in case of emergencies.

Contact related to those involved with shared structures will depend on the emergency.

An email communication with Água de Manaus regarding the feasibility of supplying a water source to serve as a backup for the Unit was attached, but this is not currently a shared infrastructure with the Unit.

Solar Manaus' effluent and stormwater discharge pipelines pass through private land before reaching the Passarinho Stream.

There was no verification of integration within the private area, nor were there any complaints recorded about any problems related to these pipelines.

Solar Manaus' engineering department maintains contact with the new project under construction (Photos 21 to 24 attached).

Attached is evidence of communication - a WhatsApp conversation between Solar Manaus' engineering department and the development under construction (condominium), in which Solar Manaus requests blueprints with the new development's piping and wastewater treatment profiles to determine whether or not there will be interference with Solar Manaus' piping.

The engineering department, in possession of the drawings, indicated there would be no interference with Solar Manaus' existing effluent and stormwater networks.

An observation is recorded:

The treated effluent and stormwater discharge pipeline runs through a private area adjacent to Solar Manaus. The integrity of this pipeline was not verified between the unit's wall and the effluent and stormwater discharge point into the Passarinho stream, nor were there any complaints recorded about any problems related to this pipeline by the project under construction (private condominium). Solar Manaus' engineering department maintains contact with the project under construction.

- 3.9 Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.
- **3.9.1** Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.





## Alliance for Water Stewardship (AWS)

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Comment Attached documents:

Water Projects.pdf

Evidence of Good Practices.pdf

Meeting Minutes of the Tarumã-Acu River Basin Water Resources Management Committee.

Updated Sustainable Management Plan.xlsx

The following are Good Practices related to Good Water Governance:

BP01 Have a Water Resources Management Team

BP02 Participate in the Tarumã-Açu River Basin Committee

BP03 Keep the unit's business risk assessment (IMCR) up to date

BP08 Bring sanitation and other shared challenges to the appropriate agencies and monitor

the progress of related projects. BP18 Zero Waste Certification

BP19 ISO 14001 Certificate (Environmental Management)

Good Practices 18 and 19 are not listed in the WSP, as they are specific to the Unit. However, they contribute to AWS items. Evidence is at Evidence of Good Practices.pdf document. The other practices are included in the Solar Manaus WSP and are highlighted in the

attached documents.

3.9.2 Actions towards achieving best practice, related to targets in terms of

water balance shall be implemented.



Comment Attached documents:

Water Projects.pdf

Evidence of Good Practices.pdf

Updated Sustainable Management Plan.xlsx

Project Dates - Closing.pdf

The following are the Best Practices related to Water Balance:

BP11 Regularly monitor water consumption

BP12 Daily control of collection and discharge volumes

BP20 Automation of valve drive system lubrication

BP21 Interlocking of the Line 07 Track Lubrication System

BP22 Reduction of pressure in the washer's final jets

BP23 Optimization of CIP water recovery

BP24 Reuse of condensate water to irrigate the garden

BP25 Redirection of rinser nozzles

The BP20 to BP25 were not included in the Solar Manaus WSP. However, evidence of their implementation is included in the document Water Projects.pdf and Project Dates -

Closing.pdf.

BP11 and BP12 are included in Solar Manaus WSP and document Evidence of Good

Practices.pdf.

3.9.3 Actions towards achieving best practice, related to targets in terms of

water quality shall be implemented.





#### **Alliance for Water Stewardship (AWS)**

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Comment Attached documents:

Evidence of Good Practices.pdf

Updated Sustainable Management Plan.xlsx

The following are the best practices related to Water Quality:

BP09 Potability analysis of source and reservoir water according to frequency and parameters

BP10 Cleaning and sanitization of sources by a specialized company

Evidence of implementation can be found in the document Evidence of Good Practices.pdf

3.9.4 Actions towards achieving best practice, related to targets in terms of

the site's maintenance of Important Water-Related Areas shall be

implemented.

Comment Attached documents:

Evidence of Good Practices.pdf

Updated Sustainable Management Plan.xlsx

The following are the best practices related to IWRA:

BP07 Planting of Seedlings within the Unit

BP13 Assessment of the Important Water Area within the Unit (AIRA ON SITE)

Evidence of implementation can be found in the document Evidence of Good Practices.pdf

3.9.5 Actions towards achieving best practice related to targets in terms of

WASH shall be implemented.

Yes

Yes

Comment Attached documents:

Evidence of Good Practices.pdf

Updated Sustainable Management Plan.xlsx

The following are the best practices related to WASH:

BP04 Breastfeeding Room for Solar Mothers

BP05 Adaptation of specific areas for showers (female/male)

BP06 Acquisition of new lockers and adaptation of the common area

BP14 Analysis of the quality of the receiving water body according to parameters

BP15 Environmental Education Training (Employees)

Evidence of implementation can be found in the documents Evidence of Good Practices.pdf and Updated Sustainable Management Plan.xlsx



# Alliance for Water Stewardship (AWS)

Audit Number: AO-001669

4	STEP 4: EVALUATE - Evaluate the site's performance.
4.1	Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.
4.1.1	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be Yes evaluated.
Comment	Attached Documents: EGRH Committee.jpg EGRH Quarterly Meeting Minutes 03-25.pdf EGRH Quarterly Meeting Minutes 06-25.pdf 2.3.2 Updated Sustainable Management Plan.xlsx
	In the WSP Status tab, Column A contains the five AWS Outcomes. Columns L and M contain the results, as follows. AWS Results for the Outcomes related to the WSP objectives: Good Water Governance: 62% Good Water Quality: 55% Sustainable Water Balance: 58% Important Water-Related Areas: 45% Clean Water, Sanitation, and Hygiene for All (WASH): 75%
4.1.2	Value creation resulting from the water stewardship plan shall be evaluated.
Comment	Attached Documents: 2.3.2 Updated Sustainable Management Plan.xlsx
	The Values Generated & Values Saved (actual/potential) columns were created in the WSP. Topics for assessment were indicated: Environmental, Social, Cultural, and/or Economic. However, no assessment was performed.
	Non-compliance was recorded due to the lack of a qualitative assessment of the Values Generated for the Unit.
	Finding No: TNR-019625
4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified.  Yes
Comment	Attached Documents: 2.3.2 Updated Sustainable Management Plan.xlsx
	Shared Challenges and Shared Benefits columns were created for each Objective of Solar Manaus' Sustainable Water Management Plan.  Qualitative assessments of shared benefits were performed for each objective.
4.2	Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.
4.2.1	A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's Yes response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future

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incidents shall be identified.



#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Comment Attached Documents:

Declaration of Non-Occurrence of Environmental Accidents and Incidents at Solar Manaus in 2024 and 2025 by the Audit Final Date.

Manaus, August 28th, 2025

DECLARATION

Subject: Environmental Accidents/Incidents

BRASIL NORTE BEBIDAS S.A., an industrial company headquartered at Av. Torquato Tapajós, No. 5,800 – Colônia Terra Nova, Manaus, AM, registered with the CNPJ (National Registry of Legal Entities) under No. 34.590.315/0001-58, declares that during the period 2024 and 2025, no environmental accidents or incidents related to the activities carried out by this unit were recorded.

We emphasize that the unit maintains its ongoing commitment to preventing pollution and improving environmental performance, adopting monitoring and control measures to ensure operational safety and environmental protection.

4.3 Evaluate stakeholders' consultation feedback

regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.

**4.3.1** Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.

Q Obs.

Comment Attached Documents:

Innova Visit.pdf CBHTA Communication – Solar Manaus Water Management Strategy.pdf Communication Email to Stakeholders.pdf Stakeholder Survey Form.pdf

Meeting with the BH Management Committee of the Tarumá-Açu River in July 2025: The "Gota" group was formed to address issues related to irregular floating vessels on the region's rivers. Solar Manaus was included in this group.

Solar Manaus is part of the Technical Group monitoring the Basin Plan.

At this meeting, Solar Manaus presented Solar Manaus' Water Management Strategy to the president, secretary, and vice president of the CBHTA.

An email was sent to Basin Stakeholders, inviting them to hold a meeting on the subject, containing a link to a survey:

- Tarumã-Açu River Basin Management Committee
- IPAAM
- SEMA
- FAS Sustainable Amazon Foundation
- Federal University of Amazonas
- C.E.T.I Zilda Ams Neumann
- Águas de Manaus
- Microlab Laboratory
- Innova
- Carboman
- Recofarma Indústria Da Amazônia Ltda

**4.4** Evaluate and update the site's water

stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.

**4.4.1** The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.



WSAS



### **Alliance for Water Stewardship (AWS)**

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Comment Attached Documents:

2.3.2 Sustainable Management Plan version 01.xlsx 2.3.2 Updated Sustainable Management Plan.xlsx

Version 01 of the Plan was presented during the Audit.

A Revisions tab was created in the Plan to record changes to the plan, as set out in document 2.3.2 Updated Sustainable Management Plan.xlsx.

Other audit-related considerations that were incorporated into the plan:

- Updated Risk numbering.
- Revised Objective Classification based on Outcomes.
- Inclusion of actions related to objectives and targets.
- Calculation of the percentage of achievement of the plan's objectives in relation to AWS outcomes.



# Alliance for Water Stewardship (AWS)

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5	STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts
5.1	Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.
5.1.1	The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.
Comment	Attached Documents: FMAO 2025 Water Management Strategy rev. 01.pdf Promotional Email.pdf
	The attached document (Water Management Strategy rev. 01), under GOVERNANCE, lists all responsible individuals (roles) in the various areas of the plant and their respective actions related to water resource management at Solar Manaus.
	The Plant's Industrial Manager is responsible for ensuring compliance with legal requirements related to water at the Solar Coca-Cola facility (Manaus plant).
	A communication email was sent to relevant stakeholders and internal audiences on August 28th, 2025, regarding the revision of the FMAO 2025 Water Management Strategy document, which incorporated the role responsible for compliance with legal requirements related to water at the Solar Manaus plant (Promotional Email.pdf document).
5.2	Communicate the water stewardship plan with relevant stakeholders.
5.2.1	The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.
Comment	Attached Documents: AWS_Solar Manaus Performance Report.pdf Disclosure Email.pdf
	Solar Manaus updated its Performance Report, including on page 4 the Updated Status of the Sustainable Water Management Plan, which includes progress on the Objectives, linked to AWS Outcomes, up to the date of the audit.
	The disclosure email was sent on August 28th, 2025, to relevant external stakeholders and internal audiences.
5.3	Disclose annual site water stewardship summary, including: the relevant information about the site's annual water stewardship performance and results against the site's targets.
5.3.1	A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.  Q Obs.



## Alliance for Water Stewardship (AWS)

Audit Number: AO-001669

Comment Attached Documents:

AWS Solar Manaus Performance Report.pdf

Disclosure Email.pdf

Photos and documents from internal disclosure events held prior to the Audit Date

Solar Manaus updated its Performance Report, including on page 4 the Updated Status of the Sustainable Water Management Plan, which lists progress toward the Objectives, linked to AWS Outcomes, as of the audit date.

The disclosure email was sent on August 28th, 2025, to relevant external stakeholders and the internal audience (management team).

An Observation was registered regarding the disclosure of the results included in the Performance Report to other employees (in addition to the management team) and outsourced service providers who are permanent at the Unit.

#### Observation:

The performance of WSP's Objectives and Goals was communicated to stakeholders and internal audiences.

Updates to the Sustainable Water Plan due to the Audit Process will be included in future communications, specifically employees and permanent service providers of Solar Manaus Unit.

- 5.4 Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges;engagement with stakeholders; and co-ordination with public-sector agencies.
- **5.4.1** The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.



Comment Attached Documents:

AWS\_Solar Manaus Performance Report.pdf

Outreach Email.pdf

AWS Shared Challenges Email (Solar Coca-Cola) pdf

Shared Challenges Attendance List.xlsx

Photo of Stakeholder Meeting

Solar Manaus updated its Performance Report, including on page 4 the Updated Status of the Sustainable Water Management Plan, which lists progress on the Objectives, linked to AWS Outcomes, up to the date of the audit.

Page 11 of the Performance Report contains the Unit's Shared Challenges.

The outreach email was sent on August 28th, 2025, to relevant external stakeholders and the internal audience (management team).

On August 18th, 2025, a virtual meeting was held with relevant external stakeholders, where the basin's shared challenges were discussed. Attached is a photo of the participants, the Shared Challenges email - which contains the content and instructions for scheduling the video conference and the Attendance List.

**5.4.2** Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.





#### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

Comment Attached documents:

CBHTA Communication - Solar Manaus Water Management Strategy.pdf Stakeholder Communication Email.pdf

Meeting with the Water Basin Management Committee of the Tarumá-Açu River (which includes representatives from the public sector and Basin agencies) in July 2025:

The "Gota" group was formed to address issues related to irregular floating vessels on the region's rivers. Solar Manaus was included in this group.

Solar Manaus is part of the Technical Group monitoring the Basin Plan.

At this meeting, Solar Manaus presented its' Water Management Strategy to the President, Secretary, and Vice president of the CBHTA.

Photo of the meeting in the document CBHTA Communication - Solar Manaus Water Management Strategy.pdf

An email was sent to Basin Stakeholders, inviting them to hold a meeting on the subject of site water stewardship performance, containing a link to a survey. Invited Representatives:

- Tarumã-Açu River Basin Management Committee
- IPAAM
- SEMA
- FAS Sustainable Amazon Foundation
- Federal University of Amazonas
- C.E.T.I Zilda Ams Neumann
- Águas de Manaus
- Microlab Laboratory
- Innova
- Carboman
- Recofarma Indústria Da Amazônia Ltda

Representatives from the Tarumã-Açu River Basin Committee, IPAAM, SEMA, and Águas de Manaus, which represent the public authorities of the State of Amazonas and the Manaus Water Agency, were invited.

- 5.5 Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.
- **5.5.1** Any site water-related compliance violations and associated corrections shall be disclosed.





### **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### Comment Attached Documents:

Operating License Condition No. 10, 2nd half of 2024 (Jul-Sep-Nov).pdf

Uncontrolled copy of the SGI Communication Plan.pdf

Declaration of non-occurrence of environmental accidents and incidents.pdf

In the Communication Procedure, in the External Communication column (defined as joint action with agencies and entities,

monitoring of matters of interest, mapping of

Political and Institutional Scenarios, Government Relations), the means of communication with environmental agencies, the person responsible, and the frequency of communication are identified.

Solar Manaus submitted the document sent to IPAAM (Environmental Agency) regarding the Corrective Action Plan (PAC) for Non-Conformity related to Test Report No. 9761/2024.0.A – ETE Exit (Sep/24):

- Action Plan regarding the concentration of Sedimentable Solids greater than 1 mL/L in test report No. 9761/2024.0; Evidence submitted: Action Plan: Final chicane cleaning proposal; Photographic report of the service;
- New Test Report No. 11702/2024.0.A submitted ETE Exit (Oct/24), demonstrating compliance with the values.

Attached is a Company Declaration confirming no Environmental Accidents or Incidents occurred up to the date of the audit in 2024 and 2025.

# **5.5.2** Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.



#### Comment

Attached Documents:

Operating License\_Condition No. 10, 2nd half of 2024 (Jul-Sep-Nov).pdf

Uncontrolled copy of the SGI Communication Plan.pdf

Declaration of non-occurrence of environmental accidents and incidents.pdf

In the Communication Procedure, in the External Communication column (defined as joint action with agencies and entities,

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- Action Plan regarding the concentration of Sedimentable Solids greater than 1 mL/L in test report No. 9761/2024.0; Evidence submitted: Action Plan: Final chicane cleaning proposal; Photographic report of the service;
- New Test Report No. 11702/2024.0.A submitted ETE Exit (Oct/24), demonstrating compliance with the values.

Attached is a Company Declaration confirming no Environmental Accidents or Incidents occurred up to the date of the audit in 2024 and 2025.

# **5.5.3** Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to

relevant public agencies and disclosed.



Comment

Attached documents:

Declaration of Non-Occurrence of Environmental Accidents and Incidents.pdf

Attached is a Declaration from Solar Manaus, stating that no environmental accidents or incidents occurred in 2024 and 2025 up to the date of the audit.

#### WSAS



## **Alliance for Water Stewardship (AWS)**

Audit Number: AO-001669

#### **Previous Findings**

All non-conformities raised in the previous audit have been satisfactorily closed.

