CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001032

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

SITE DETAILS

Site: **BAT Kenya Green Leaf Threshing Plant - Thika**
Address: OFF GARISSA ROAD, ALONG OLOITIPTIP ROAD, 01000, Thika, KENYA
Contact Person: Ann Waireri
AWS Reference Number: AWS-000420
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core
Date of certification decision: 2024-Nov-05
Validity of certificate: 2027-Nov-04

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Re-Certification Audit
Audit Start Date: 2024-Jun-24
Lead Auditor: Ruth Wandera

Audit team participants:
Anasse Ait Lemkademe, Observer Auditor

Site Participants:
Sohel Rana, Head of Leaf Kenya
Peter Kamondia, GLT Manager
Mark Kibet, Leaf Growing Manager
Harriet Rwanda, Leaf Sustainability Manager
Stephen Muli, Sustainability Manager
Clement Lelei, Supply Chain Manager
Gideon Kwinga, Technical Executive
Isaac Kariuki, Engineering Manager
Martin Njuguna, Process Lead
Ann Waireri, Sustainability Executive

ADDITIONAL INFO

Summary of Audit Findings: A total of 15 findings were raised during the certification audit, 0 major non-conformities, 7 minor non-conformities, and 8 observations.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 30 days of receipt of the audit report by 20 September 2024.

Minor non-conformities must be closed out by the time of the next annual audit.

The audit team recommends re-certification of BAT Kenya Green Leaf Threshing Plant - Thika at Core level pending approval of the corrective actions plan for the non-conformities raised.

CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully submitted the corrective action plan addressing all findings.
Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit. The client is requested to upload evidence of implementation prior to the Surveillance Audit.

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Alliance for Water Stewardship (AWS)

Audit Number: AO-001032

Scope of Assessment: The scope of services covers the recertification audit for assessing conformity of BAT Kenya Green Leaf Threshing Plant - Thika against the AWS International Water Stewardship Standard Version 2.

The BAT Kenya Green Leaf Threshing Plant in Thika was established in 1978 and spans 30 acres. Located in the industrial and commercial hub of Thika, an industrial town in Kiambu County, Kenya, it lies 42 kilometres (26 mi) northeast of Nairobi on the A2 road, near where the Thika and Chania Rivers meet.

The facility has a processing capacity of 7.5 tonnes per hour with a four-stage threshing line. It operates on a single shift pattern for 6 to 7 months of processing annually. During these months, the plant employs 309 staff members, predominantly on a contractual basis, with 40 being permanent BAT employees.

The farmers who provide the plant with tobacco leaves are situated outside its catchment, hailing from the Eastern, Malakisi, and Oyani regions.

The site is situated within the Thika-Chania Sub-Catchment, a segment of the Greater Tana Basin. This catchment area is centrally located in Kenya, roughly 50km north of Nairobi (Aurecon AMEI Limited, 2019). It is part of the larger Tana River basin, which ultimately discharges into the Indian Ocean (Knoop et al., 2012). The Thika and Chania rivers, originating from the Aberdare Mountains, are the primary watercourses traversing the catchment, merging at the northwestern boundary of Thika town (Knoop et al., 2012). The catchment's discharge point is at latitude 37.382 and longitude -1.104, corresponding with the WRA monitoring station 4CC07. Spanning 134,227 hectares, the watershed supports a population exceeding 900,000 individuals (World Resources Institute, 2007; World Bank, n.d.) and is predominantly spread across Muranga and Kiambu counties.

The audit was conducted onsite from 24th June to 26th June 2024.

The onsite inspection encompassed evaluations of the following areas as part of the audit:
- Incoming water points and meter
- Onsite hazardous material storage facility
- Onsite oil storage facility
- Chemical storage section
- Employee ablution facilities and drinking stations
- Stormwater management and discharge area
- Hazardous waste storage section
- Primary wastewater discharge locations
- Production and laboratory areas
- Storage warehouse
- External perimeter of the facility

FINDINGS

NUMBER OF FINDINGS PER LEVEL

Observation	8
Minor	7

FINDING DETAILS

Finding No:	TNR-010811
Checklist Item No:	1.1.1
Status:	Response received
Finding level:	Observation
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 Google Map does not provide a clear delineation of the catchment area and its physical extent in relation to the site.
Corrective action:	In addition to analysis of the broader Tana catchment, its critical infrastructure, water balance etc, we will review and narrow down to the sub-catchment of the Thika River Basin, aligning it more closely with the site's specific needs. Additionally, we will map out the relationship between the site, the Thika River Basin, and the receiving wastewater body, which is the Komu River. We will also assess groundwater resources comprehensively and determine their status in terms of depletion.

Finding No:	TNR-010818
Checklist Item No:	1.3.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped
Findings:	The site's water balance map does include marking of evaporative losses. Rainwater and stormwater could also be included.
Corrective action:	Include rainfall on site, evaporation from green spaces, and moisture loss from green leaf processing in the water balance analysis.

Finding No:	TNR-010819
Checklist Item No:	1.3.3
Status:	Response received
Finding level:	Observation
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:	Additional analysis should be conducted to better identify and quantify evaporative and other losses. The site could also try to quantify rainfall inflow and stormwater runoff to understand rainwater potential.
Corrective action:	Include rainfall on site, evaporation from green spaces, and moisture loss from green leaf processing in the water balance analysis.

Finding No:	TNR-011666
Checklist Item No:	1.3.4
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	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.
Findings:	Water quality of the receiving water body, the Komu river, has not been quantified.
Corrective action:	Present the results in a quantitative format and incorporate them into the water stewardship plan for effective tracking.

Finding No:	TNR-010938
Checklist Item No:	1.3.5
Status:	Response received
Finding level:	Observation
Checklist item:	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.
Findings:	During the site inspection, the vehicle parking area was not recognized as a potential pollution source, and suitable emergency response plans to address possible fuel leaks were not established.
Corrective action:	Review and update the site's environmental risk assessment to include the vehicle parking areas as a potential pollution source and any other area that may have been omitted

Finding No:	TNR-010957
Checklist Item No:	1.5.3
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.
Findings:	The water balance provided is for the Tana catchment which happens to be very large and may differ from the site's sub-catchment which is the Thika- Chania catchment. The status of the Nairobi aquifer is also not clearly understood.
Corrective action:	To refine our approach, we will review and narrow down the catchment area from the broader Tana catchment to the sub-catchment of the Thika River Basin, aligning it more closely with the site's specific needs. Additionally, we will map out the relationship between the site, the Thika River Basin, and the receiving wastewater body, which is the Komu River. We will also assess groundwater resources comprehensively and determine their status in terms of depletion.

Finding No:	TNR-010958
Checklist Item No:	1.5.4
Status:	Response received
Finding level:	Observation
Checklist item:	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.
Findings:	No seasonal trends were available to better understand the Thika/Chania seasonal surface water quality as well as the Nairobi aquifer ground water quality.
Corrective action:	The Seasonal trends will be analyzed to better understand the Thika-Chania sub-catchment’s surface water quality and the Nairobi aquifer’s groundwater quality. This can be achieved by engaging with THIWASCO to access studies on localized water flow, usage, and quality.

Finding No:	TNR-010959
Checklist Item No:	1.5.6
Status:	Response received
Finding level:	Observation
Checklist item:	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.
Findings:	More infrastructure needs to be identified in the catchment as well as the potential of exposure to extreme events of all existing and planned infrastructure.
Corrective action:	Collaborate with THIWASCO to evaluate the vulnerability of infrastructure to extreme events such as floods, droughts, and storms by analyzing historical weather data and projected climate impacts.

Finding No:	TNR-010969
Checklist Item No:	1.7.2
Status:	Response received
Finding level:	Observation
Checklist item:	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.
Findings:	While the evidence provided enumerates opportunities and incorporates a scoring system, as well as the potential savings it lacks explicit details on direct business opportunities associated with each item.
Corrective action:	Revise the reported opportunities to emphasize the significant impact of water stewardship initiatives on our direct business operations, particularly in Green Leaf Threshing. This will include a detailed analysis of how water conservation, efficient usage, and sustainability efforts contribute to operational efficiency, cost reduction, and compliance with environmental regulations.

Finding No:	TNR-010970
Checklist Item No:	2.1.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	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.
Findings:	The facility statement failed to explicitly mention that the site will undertake and disclose on the progress of water stewardship programs to achieve improvements in AWS water stewardship outcomes.
Corrective action:	The BAT Water Stewardship policy statement on AWS shall be revised to 'Commitment to implement, disclose and report our water stewardship activities in an open and transparent way to achieve improvements in Alliance for Water Stewardship outcomes'

Finding No:	TNR-010988
Checklist Item No:	2.4.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.
Findings:	A plan was presented to mitigate or adapt to the identified water risks, but there was no evidence of coordination with the relevant public-sector agencies.
Corrective action:	Work with WRA to identify areas where additional resources or capacity may be needed to ensure project completion.

Finding No:	TNR-011605
Checklist Item No:	3.4.1
Status:	Response received
Finding level:	Observation
Checklist item:	Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.
Findings:	On water quality, the site has monitoring (testing) actions planned in the water stewardship plan but lack of targets what the site wants to achieve, or what knowledge gap it wants to fill, or similar - why this monitoring is planned? On its own, monitoring is an action that gives information but does not change the water quality.
Corrective action:	Collecting data from monitoring borehole identified by the WRA within the catchment to ensure accurate data collection and analysis for informed water stewardship decisions. Incorporate water quality discussions into our periodic stakeholder engagements, as it is a key concern for the entire catchment.

Finding No:	TNR-011020
Checklist Item No:	3.6.2
Status:	Response received
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:	The facility provided the following data for WASH in the catchment area: 46% of the Kiambu population lacks access to clean drinking water. In terms of sanitation, 0.3% practice open defecation, 43.5% have improved sanitation with a septic tank, 36.9% use a shared sanitation facility, and 19.3% have unimproved sanitation without a septic tank. Despite this, there has been no investment in WASH to improve conditions in the catchment. All investments were for the facility only.
Corrective action:	Through collaboration with the WRUA and WRA, we can identify specific community needs in terms of WASH and provide targeted support. as well as monitor and evaluate these interventions to track their effectiveness. This will be included during the budget review so as to capture both internal and catchment initiatives.

Finding No:	TNR-011025
Checklist Item No:	3.8.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.
Findings:	The facility failed to adequately collect all relevant information on catchment infrastructure and to comprehend the potential risks of extreme events to both existing and planned water-related infrastructure as outlined in section 1.5.6. Consequently, it missed the chance to devise a plan for engaging with and informing the owners of any shared water-related infrastructure about the site's concerns.
Corrective action:	Conduct a comprehensive mapping and evaluation of all existing and planned infrastructure within the catchment area by collaborating with local authorities, stakeholders, and Thiwasco to gather accurate data. Collaboration with THIWASCO to evaluate the vulnerability of infrastructure to extreme events such as floods, droughts, and storms by analyzing historical weather data and projected climate impacts.

Finding No:	TNR-011606
Checklist Item No:	5.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Jun-24
Checklist item:	A summary of the site’s water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.
Findings:	Compared to the Water Stewardship Plan, the site disclosed only performance of water balance targets (recycling rate and total water withdrawn). No performance against targets on other water stewardship outcomes has been disclosed.
Corrective action:	The site shall develop a comprehensive reporting framework that includes measurable targets for all water stewardship outcomes, such as water quality improvements, ecosystem health, community access to WASH facilities, and reducing water-related risks alongside water balance metrics.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001032

Report Details

Report	Value
Report prepared by	Ruth Wandera
Report approved by	Neringa Pumputyte
Report approved on (Date)	20 August 2024

Surveillance

Proposed date for next audit
2025-Jun-24

Stakeholder Announcements

Date of publication	Location
04/04/2024	Daily Nation Newspaper
25/03/2024	Email to stakeholders
07/03/2024	AWS website
07/03/2024	WSAS website

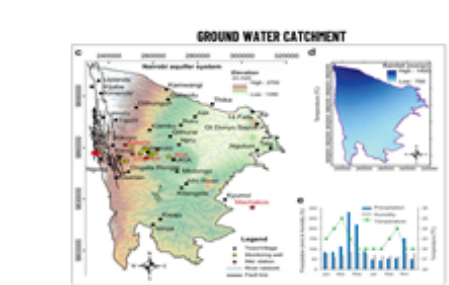
Catchment Information

Catchment Information

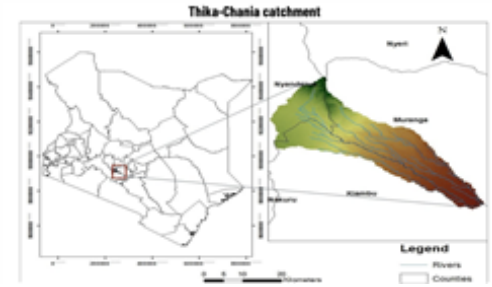
The site is situated within the Thika-Chania Sub-Catchment, a segment of the Greater Tana Basin. This catchment area is centrally located in Kenya, roughly 50km north of Nairobi (Aurecon AMEI Limited, 2019). It is part of the larger Tana River basin, which ultimately discharges into the Indian Ocean (Knoop et al., 2012). The Thika and Chania rivers, originating from the Aberdare Mountains, are the primary watercourses traversing the catchment, merging at the northwestern boundary of Thika town (Knoop et al., 2012). The catchment's discharge point is at latitude 37.382 and longitude -1.104, corresponding with the WRA monitoring station 4CC07. Spanning 134,227 hectares, the watershed supports a population exceeding 900,000 individuals (World Resources Institute, 2007; World Bank, n.d.) and is predominantly spread across Muranga and Kiambu counties.

The Chania River, along with its tributaries, the Thika and Kariminu Rivers, originates from the slopes of Mount Kinangop in the Aberdare Range and falls within the Tana River catchment area. A characteristic feature of the area is the youthful dissection of the plain, with rivers deeply incising their valleys. The Chania River intersects the road approximately 100 meters upstream of Chania Falls, near the Blue Post Hotel, and merges with the Thika River shortly downstream, forming part of the larger Tana Catchment.
The Komu River serves as the final recipient of wastewater from the site. THIWASCO processes the wastewater collected from the site and releases the treated effluent into the Komu River, which then flows into the Athi River and eventually to Tana.
According to the Water Resource Users Association, the site is situated within the Thika-Mid WRUA.

The Nairobi Aquifer Suite is the source of groundwater for the site. This aquifer, one of Kenya's most crucial, is categorized as a Moderate Productivity Aquifer. It consists of Plio-Pleistocene volcanic materials interspersed with ancient land surfaces and intervolcanic sediments, covering a large portion of the Nairobi metropolitan area. The aquifer system is complex and multilayered, recharged at the Rift Valley's eastern edge, with groundwater flowing eastward. It starts unconfined in the recharge area and becomes confined as it moves east. The primary aquifer stratum, known as the Upper Athi Series, is confined and usually located between 120 to 300 meters below ground level. Transmissivity values vary from 0.1 to 160 square meters per day, and hydraulic conductivity values range from 0.01 to 1.3 meters per day. Storage coefficients are between 1.2 x 10^-4 and 4.2 x 10^-1 (Mumma et al. 2011). Boreholes are generally drilled to depths of 250 to 400 meters. (Source: Kenya Groundwater Governance White Paper).



Ground water Catchment.jpg



Thika Chania Catchment.jpg

Thika mid sub Catchment.jpg

Client Description and Site Details

Client/Site Background

The BAT Kenya Green Leaf Threshing Plant in Thika was established in 1978 and spans 30 acres. Located in the industrial and commercial hub of Thika, an industrial town in Kiambu County, Kenya, it lies 42 kilometres (26 mi) northeast of Nairobi on the A2 road, near where the Thika and Chania Rivers meet.

The facility has a processing capacity of 7.5 tonnes per hour with a four-stage threshing line. It operates on a single shift pattern for 6 to 7 months of processing annually. During these months, the plant employs 309 staff members, predominantly on a contractual basis, with 40 being permanent BAT employees.

The farmers who provide the plant with tobacco leaves are situated outside its catchment, hailing from the Eastern, Malakisi, and Oyani regions.

The site has boreholes on site and also relies on municipal water, which is sourced mainly from surface water.

GLTP Site Boundary.jpg

GLTP Aerial view.jpg

GLT Thika Site spatial Mapping.jpg

	Summary of Shared Water Challenges

Summary of Shared Water Challenges
Prioritized shared Surface water challenges
Enforcement of existing laws: Many stakeholders feel that existing laws and regulations related to water are not being adequately enforced.
Water pollution: Agricultural runoff from farms (fertilizers and pesticides) and discharge of untreated effluent affect the water quality
Climate Change: Human activities(deforestation and encroachment into the riparian) are impacting negatively on the environment leading to a drastic change in the climate. The rain patterns have changed significantly.
Urbanisation and land change use-Many people are moving to the urban areas, and this is leading to land clearing and changing of agricultural land /Forest reserves to towns as well as water scarcity as existing capacity can not cater for all
Low awareness and education: many stakeholders believe that low levels of awareness and education on water issues amongst the public affects how people manage water matters

Prioritization of Underground Water Shared Challenges
Over abstraction/over exploitation-The Nairobi Aquifer Suite is currently being overexploited due to increased demand for water from the growing population and industries. This has led to a decline in water levels and quality, which can cause environmental degradation and affect the availability of water resources for future generations.
Pollution: The aquifer suite is vulnerable to industrial, agricultural, and domestic contamination. Pollution from human activities can seep into the aquifer and affect the quality of the water, making it unsafe for consumption and irrigation.
Low awareness/understanding of ground water-A lot of persons believe that ground water can not be depleted and since it can not be seen very little effort is put to conserve it.There is also a lack of awareness and understanding among stakeholders of the importance of sustainable management practices.
Low/inadequate enforcement of existing laws -There is a lack of effective management of underground water, which has led to a situation where the resource is being overexploited without proper regulations. Illegal water abstraction-The existing laws and regulations are being enforced to curb the abstraction.
Climate Change-Climate change has affected the water cycle and has altered the availability of water resources in our catchments. Changes in rainfall patterns and especially the drought we just experienced a few months ago have affected the recharge of the aquifers.

0.1	General Requirements for Single Sites, Multi-Sites and Groups	
0.1.1	*Eligibility Criteria*	
0.1.1.1	*The site(s) occupy one catchment OR an exception has been granted.*	Yes
0.1.1.2	*The scope of the proposed certification shall be under the control of a single management system.*	Yes
0.1.1.3	*The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.*	Yes

1	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.

Obs.

Comment

The physical scope of the site was mapped however the google maps have not clearly delineated the catchment area and physical scope in relation to the site location.

- Site boundaries; were provided in the document '1.1.1.1 20240404 Thika Site Boundary'
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization; - provided here '1.1.1.2 20241106 Water related infrastructure-model 2'; and '1.1.1.2 water related infrastructure'. '1.1.1_Site_drainage_map' clearly shows entry and exit points of water on site.
- Any water sources providing water to the site that are owned or managed by the site or its parent organization; - provided here '1.1.1.4 20240221 WSP and Ultimate Source'.
- Water service provider (if applicable) and its ultimate water source; - provided here '1.1.1.4 20240221 WSP and Ultimate Source' & '1.1.1.4 Water Source'.
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies; - provided here '1.1.1.5 20240221 Discharge Points'
- Catchment(s) that the site affect(s) and is reliant upon for water - found here '1.1.1.6 20240221 Catchment' . The google maps have not clearly delineated the catchment area and physical scope.

Thika-Chania Sub-Catchment is a surface water catchment that the site sits in and that the site relies on for water supply. It is part of the larger Tana catchment
Nairobi aquifer is another (groundwater) catchment that the site relies on for water.
The receiving water body is Komu River - its sub-catchment is a surface water catchment that the site may affect. It is also part of the larger Tana catchment.

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

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.

Yes

Comment: The process used for stakeholder identification is covered in '20240221 Kenya GLT AWS Stakeholders,' with new stakeholders for 2024 highlighted in blue.

- Inclusively cover all relevant stakeholder groups, including vulnerable, women, minority, and Indigenous people; this is detailed in columns C & D of '20240221 Kenya GLT AWS Stakeholders' under "10 faithful sisters."
- Consider the physical scope identified, including stakeholders representative of the site's ultimate water source and receiving water bodies; this is provided in the stakeholder mapping sheet of '20240221 Kenya GLT AWS Stakeholders.'
- Provide evidence of stakeholder consultation on water-related interests and challenges; this is documented in '20240221 Stakeholder Visit-1.'
- Note that the ability and/or willingness of stakeholders to participate may vary across relevant stakeholder groups; this is noted in columns H to K of '20240221 Stakeholder Visit-1.'
- Identify the degree of stakeholder engagement based on their level of interest and influence; this is identified in column K of '20240221 Kenya GLT AWS Stakeholders.'

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: The current and potential degree of influence between the site and stakeholders within the catchment has been identified. The site has considered its ultimate water source and the ultimate receiving water body for wastewater in the attachment '20240221 Kenya GLT AWS Stakeholders' in the sheet for Stakeholder Mapping.

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.*

Yes

Comment: The documents supplied meet the standard criteria for identifying and documenting response plans for water-related incidents. They cover various potential scenarios and incorporate strategies for both response and mitigation. The site inspection verified the availability and sufficiency of emergency response equipment and procedures, including spill kits and secondary containment systems, particularly around recognized pollution sources.

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

in progress

Comment: The infrastructure map provided does not comprehensively represent all water flows.

Finding No: TNR-010818

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.*	Obs.
Comment	The provided evidence includes quantified data on water usage, covering inflows (absolute water withdrawn), outflows, and details about water recycling and losses. This meets the standard's requirement for demonstrating quantified annual variance in water use rates. However, additional analysis should be conducted to identify and understand losses, as well as to quantify rainfall and stormwater runoff for inclusion in the water balance.	
1.3.4	*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.*	in progress
Comment	Water quality of the sites water sources i.e. borehole and municipality water meets legislative requirements based on the test reports provided. Wastewater results were also provided and these also met legislative requirements. Water quality is a shared water challenge and therefore the site provided data from 2022 to quarter 1 of 2024.	
	Finding No: TNR-011666	
1.3.5	*Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.*	Obs.
Comment	Potential sources of pollution were identified and mapped including chemicals used on site.	
1.3.6	*On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.*	Yes
Comment	Wazito park was identified and mapped as an IWRA. The status was indicated as good. This park is said to be accessible to the public and the site has invested in growing trees in this area. The irrigation water used at the park from process water was analysed and found to be slightly out of range with regards to pH. An investigation seems to have been done regarding this and the action the site decided to take was further analysis in Q2. It is not clear whether the water was later used for irrigation at the park despite the pH being slightly out of range.	
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.*	Yes
Comment	The site provided annual water related costs. There are no revenues generated. The facility provided a description of the social, cultural, environmental and economic water related value generated by the site.	
1.3.8	*Levels of access and adequacy of WASH at the site shall be identified.*	Yes
Comment	The facility quantified the WASH facilities onsite and defined adequacy by comparing to legislative requirements.	
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.*	Yes

Comment

The facility has identified essential primary raw materials and packaging materials that are sourced externally, such as water, green leaf tobacco, C48, straps, and kraft paper. They have detailed the suppliers of these materials, including their locations and the origins of the materials. Additionally, the site has collected data on water usage for certain inputs and evaluated water stress levels in the sourcing catchment areas, revealing low to medium water scarcity for the majority of suppliers.
The site conducted a thorough assessment to ensure compliance with this indicator, despite not all primary raw materials originating from its catchment area.

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

Yes

Comment

The facility designated the laundry services for employee overalls as an outsourced service. Although section 1.4.1 indicated that these services were not situated within the site's catchment area, the volume of water utilized was quantified.

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.*

Yes

Comment

The facility has recognized water governance initiatives as outlined by the THIWASCO Watershed Management Action Plan, Sub Catchment Management Plans from Thika Mid WRUA, the National Water Master Plan 2030, Kiambu County Water and Sewerage Policy, and the Bring Njururi Back Initiative.

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

Yes

Comment

The document '20240126 Water Regulation Tracker' identified the applicable water-related legal and regulatory requirements, including columns for 'Applicable Law/Custom', 'Requirement', and 'Compliance Status', among others. Concerning stakeholder-verified customary water rights, the facility shared email correspondence with Thika mid WRUA, inquiring about any cultural or religious water rights within the catchment area. Thika mid WRUA replied in the negative, initially in 2021 and reconfirmed on 1 May 2024. (Re: Follow Up on Tana Catchment Information)
Additionally, the facility provided email proof from BAT legal, affirming that there are no additional water rights beyond those stipulated in Kenyan law, including case law. (RE: Water Rights beyond what is provisioned for in Kenyan Laws)

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

in progress

Comment

Summary:
- Thika mid experiences water scarcity compared to the upper catchment
- There is enough water in the catchment but with seasonal fluctuations Thika Mid still remains with water scarcity issues
- To counter the periodic scarcity/seasonality of the available water it is recommended rain water harvesting and storage to be done

There is room for improvement in terms of catchment water balance.

Finding No: TNR-010957

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.*

Obs.

Comment	An assessment of the surface water quality focusing on the Chania catchment situated on the lower side of the Aberdares water tower of Kenya that supplies 95% of water to the capital Nairobi had the following results: -The microbiological quality of the raw surface water was found to contain a high number microbial indicator counts implying that the water is not suitable for drinking without treatment. - Generally, most of the physico-chemical parameters were within the allowable WHO recommended maximum contaminant levels (MCL) with the exception of wet season where water samples had values of turbidity higher than WHO guideline values. - Results of heavy metal analysis revealed that surface water in some sampling points was polluted with Manganese, Iron, Nickel and Lead above WHO recommended levels with Thika River sampling point having higher levels of metal pollutants. Water Quality Index (WQI) to assess the suitability of the water for human use based on selected physico-chemical parameters (nitrates, Total Dissolved solids (TDS), potassium, sulphates, chlorides, copper, manganese, pH and phosphates). Generally, the WQI indicated that water quality was fair to good in the dry season (19.67 to 30.10) but fair to poor in the wet season (23.17 to 89.15). It is recommended that the riparian zone of the Chania River be protected from anthropogenic disturbances in the County Kiambu. Ground water quality The Nairobi aquifer has high fluoride concentrations, which mostly exceed WHO standards, especially towards the Embakasi area. There is no visibility on the status of quality of surface water in the catchment. No trends are available.	
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.*	✓ Yes
Comment	Important Water-Related Areas were identified, and mapped,and their status assessed.	
1.5.6	*Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.*	🔍 Obs.
Comment	Existing and planned infrastructure was identified but there is room for more infrastructure to be identified. The potential exposure to extreme events was identified for some of the infrastructure but not all.	
1.5.7	*The adequacy of available WASH services within the catchment shall be identified.*	✓ Yes
Comment	46% of the Kiambu population do not have access to clean drinking water. Sanitation 0.3% open defecation, 43.5% with improved sanitation i.e. with septic tank 36.9% with shared sanitation facility and 19.3% with unimproved sanitation i.e. no septic tank 87% of Kiambu population use septic tanks	
1.6	*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.*	✓ Yes

Comment

Prioritized shared Surface water challenges
Enforcement of existing laws: Many stakeholders feel that existing laws and regulations related to water are not being adequately enforced.
Water pollution: Agricultural runoff from farms (fertilizers and pesticides) and discharge of untreated effluent affect the water quality √
Climate Change: Human activities(deforestation and encroachment into the riparian) are impacting negatively on the environment leading to a drastic change in the climate. The rain patterns have changed significantly. √
Urbanisation and land change use-Many people are moving to the urban areas, and this is leading to land clearing and changing of agricultural land /Forest reserves to towns as well as water scarcity as existing capacity can not cater for all
Low awareness and education: many stakeholders believe that low levels of awareness and education on water issues amongst the public affects how people manage water matters √

Prioritization of Underground Water Shared Challenges
Over abstraction/over exploitation-The Nairobi Aquifer Suite is currently being overexploited due to increased demand for water from the growing population and industries. This has led to a decline in water levels and quality, which can cause environmental degradation and affect the availability of water resources for future generations. √
Pollution: The aquifer suite is vulnerable to industrial, agricultural, and domestic contamination. Pollution from human activities can seep into the aquifer and affect the quality of the water, making it unsafe for consumption and irrigation. √
Low awareness/understanding of ground water-A lot of persons believe that ground water can not be depleted and since it can not be seen very little effort is put to conserve it.There is also a lack of awareness and understanding among stakeholders of the importance of sustainable management practices. √
Low/inadequate enforcement of existing laws -There is a lack of effective management of underground water, which has led to a situation where the resource is being overexploited without proper regulations. Illegal water abstraction-The existing laws and regulations are being enforced to curb the abstraction.
Climate Change-Climate change has affected the water cycle and has altered the availability of water resources in our catchments. Changes in rainfall patterns and especially the drought we just experienced a few months ago have affected the recharge of the aquifers. √

1.6.2 *Initiatives to address shared water challenges shall be identified.* Yes

Comment

The following are some of the initiatives proposed by the facility to address the shared water challenges:
550KWP solar plant in GLT
Sedimentation tank installation
Tree seedlings donation(7,000 tree seedlings donated) and tree planting activities
Clean up activities
Fruit Orchid in GLT and tree planting in GLT
Stakeholder awareness sessions
Implementation of WASH project in catchment
Water recycling project in GLT

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.* Yes

Comment

The facility pinpointed particular water-related risks, categorized them, outlined the potential impacts on business, and suggested countermeasures. These risks were evaluated and scored based on their probability and impact, as well as the geographical relevance to the water risks, utilizing global datasets.

1.7.2 *Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.* Obs.

Comment: The facility has provided an extensive list of identified water-related opportunities, including rainwater harvesting and water recycling. Each opportunity is assessed based on its likelihood of success and potential benefits, along with a proposed plan for site involvement. While the document enumerates these opportunities and incorporates a scoring system, as well as the potential savings it lacks explicit details on direct business opportunities associated with each item.

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

Comment: The facility identified the following best practices for water governance in the catchment:

1. Engage with peer organizations and stakeholders to promote water stewardship:
   - Raise awareness and engage in water stewardship.
   - Participate in KAM Energy Awards and Audits.
   - Include the water stewardship journey in the BAT Sustainability report (British American Tobacco Kenya - Financial sustainability reports (batkenya.com)).

2. Participate in multi-stakeholder platforms to address water issues in the catchment, such as membership in WRUA.

3. Support, participate in, or partner with public sector initiatives on water issues:
   - Partner with local government/authorities on afforestation activities.
   - Influence the municipality to introduce an effluent discharge license in the county.

4. Participate in the public review of new water treatment plants and in the Bring Njururi Back Initiatives and meetings.

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: The facility has identified the following best practices for maintaining water balance:
- Optimization of water usage in processing to minimize overall consumption (reducing water intensity per ton of tobacco produced).
- Establishment of a leak detection program with corrective actions (digitalization and utilization of Power Apps).
- Automation of daily water usage readings, reporting, and tracking (using Power Apps).
- Recycling of boiler condensate and process wash-off water (Phase 1 and 2).
- Regular training for workers, incorporating water conservation into induction programs.
- Installation of mister/deaerator water-saving taps for a pilot project to monitor usage.
- Installation of Level 3 water meters for point-of-use monitoring.
- Recycling of QC water condensate.

1.8.3 *Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.* Yes

Comment	The facility has outlined the following best practices for maintaining water quality: - Installation of additional spill kits in the lubricant storage area - Employee training on spill management procedures - Performance of Legionella water testing for the Raised WT, Accounts block tank, and Admin block tanks - Desludging interceptors to lessen the burden on the public sewer system - Tree planting activities at Oldonyo Sabuk National Park (recharge zone) and along the Chania Thika River to combat soil erosion - Execution of SVOC and VOC water analyses on groundwater, despite it not being a legislative requirement - Collaboration with the Water Resources Authority to monitor borehole water tests.	
1.8.4	*Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.*	Yes
Comment	The facility has outlined the following best practices for the maintenance of Important Water-Related Areas (IWRA): - Restoration of riparian area conditions, including tree planting at the THIWASCO sewage plant and along the Chania River. - Rehabilitation of a community borehole/well. - Establishment of a regular physical/visual monitoring program to observe any changes or impacts on the IWRA catchment. - Annual planting of at least 10 trees in Wazito Park, which serves as an IWRA. - Estimation of the volume of water that infiltrates the ground during the rainy season, as Wazito Park acts as a recharge zone for the surface aquifer. - Placement of public communication posters at designated waterfalls as part of the "Bring Njururi Back" recreation task force initiative.	
1.8.5	*Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.*	Yes
Comment	The facility has identified the relevant sectors and catchment areas to establish best practices for providing equitable and adequate WASH services. The list includes: - Implementing a WASH project within the catchment area. - Constructing a room for mothers. - Distributing soap and petroleum jelly to employees. - Engaging Rentokil for the disposal of sanitary waste. - Installing bidets and providing sanitary disposal bins. - Supplying emergency female hygiene products. - Offering water to the community through a tank placed outside the GLT. - Providing bottled drinking water dispensers. - Completing a public toilet outside the GLT, benefiting over 500 community members.	

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.*	in progress
Comment	The signed statement confirmed the following: - The site implementation will align with and support existing catchment sustainability plans. - The site's stakeholders will be engaged openly and transparently. - The site will allocate resources to implement the Standard. However, the statement omitted the following: - The site will implement and disclose on the progress of water stewardship programs to achieve improvements in AWS water stewardship outcomes. ***Finding No: TNR-010970***	
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.*	Yes
Comment	The facility provided email communication (of laboratory results) with regulatory agencies as the process used for adhering to water and wastewater regulations. The documents provided also assigned responsibilities and delineate the procedures for managing legal and regulatory obligations. They also support the procedural framework by guaranteeing that all required environmental and water-related licenses are actively monitored and kept current.	
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.*	Yes

Comment

A water stewardship strategy has been developed, outlining the organization's mission, vision, and goals for effective water stewardship, consistent with the AWS Standard.

The facility's Vision was 'To achieve the highest practicable levels of water conservation across the entire value supply chain.'

Mission: 'To be responsible water stewards by leading and engaging with our stakeholders in understanding our collective water challenges, risks and opportunities which contribute to achieving Sustainable Development Goals on Clean Water and Sanitation (goal 6) and gaining Alliance for Water Stewardship (AWS) certification in line with BAT's Environment Social Governance (ESG) agenda.'

Some of the Goals provided by the facility were as follows:
- Develop and implement a water balance for the site including the water quality and quantity which will help in identification of opportunities for water reduction, consumption and recycle water where feasible.
- Identification of site and catchment water important areas and related water risks and their cost implications
- Identification and mapping of the stakeholders and carry out a survey on shared water risks, challenges, opportunities, and their mitigations
- Collaboration and sharing of information with our suppliers, stakeholders, and other interested parties, assisting them in understanding their impact on proper water use hence reducing our impact throughout the supply chain.

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.

Yes

Comment

A water stewardship plan was provided with the following information:
- How it will be measured and monitored - column E
- Actions to achieve and maintain (or exceed) it - column F
- Planned timeframes to achieve it - column G
- Financial budgets allocated for actions - column H
- 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 J & K

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.*

in progress

Comment

A plan was presented to mitigate or adapt to the identified water risks, but there was no evidence of coordination with the relevant public-sector agencies.

Finding No: TNR-010988

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.* ✓ Yes

Comment: The Water Stewardship Plan shows that the facility has contributed positively to catchment governance, offering the following as proof of implementation:
- Participation in a multi-stakeholder collaborative platform for water-related issues within the catchment. The action items included:
  * Payment of the annual subscription fee for Thika Mid WRUA.
  * Execution of one stakeholder engagement to raise awareness among stakeholders about proper water practices - evidence provided includes a stakeholder engagement presentation and invitation letter in '2a and 4.20240221 Stakeholder Engagement' & '2.20240423 THIWASCO Stakeholder Engagement'.
  * Active involvement in the stakeholder engagements organized by Thika Mid WRUA - as documented in '4a.20240422 THIWASCO Water Infrastructure Engagement'.

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.* ✓ Yes

Comment: The facility conducted inquiries into the water rights of indigenous peoples beyond legislative documentation, yielding the following findings:
- The Chief affirmed that indigenous peoples possess no water rights, whether cultural or religious, beyond those recorded in legal statutes.
- Thika Mid WRUA's response echoed this sentiment.
- Similarly, the BAT legal department corroborated that no supplementary water rights exist outside of those established in statutory and case law.

The facility has implemented on-site measures to prevent pollution from affecting the neighboring communities:
- Sluice gates are closed during oil offloading operations. Refer to '3.2.2 Sluice Gate Installation.'
- Spill kits and bund walls are utilized to contain any spillages. Details can be found in '3.2.2 Spill Kits and Bundwalls for any spillage points.'
- Employees receive training on spill management, as outlined in '3.2.2 Training on spill management.'

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.* ✓ Yes

Comment: The facility is equipped with a water regulation tracker and has established a procedure for monitoring legislation. Additionally, a license renewal escalation matrix is in place.

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

The facility conducted inquiries into the water rights of indigenous peoples beyond legislative documentation, yielding the following findings:
- The Chief affirmed that indigenous peoples possess no water rights, whether cultural or religious, beyond those recorded in legal statutes.
- Thika Mid WRUA's response echoed this sentiment.
- Similarly, the BAT legal department corroborated that no supplementary water rights exist outside of those established in statutory and case law

The facility has implemented on-site measures to prevent pollution from affecting the neighboring communities:
- Sluice gates are closed during oil offloading operations. Refer to '3.2.2 Sluice Gate Installation.'
- Spill kits and bund walls are utilized to contain any spillages. Details can be found in '3.2.2 Spill Kits and Bundwalls for any spillage points.'
- Employees receive training on spill management, as outlined in '3.2.2 Training on spill management.'

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.*

Yes

Comment

Progress towards achieving the water balance targets outlined in the water stewardship plan is as follows:
- 2.04m³ of water to be used to produce one ton of tobacco.
  * A water leakage log is maintained with 100% completion of all identified actions.
  * Partial automation of water data collection is implemented (using QR codes to record meter readings for data entry, Power BI dashboards for expedited data interpretation, and online tracking of water leakages).
  * Phase 1 installation of water misters in the main men's washrooms and Wazito Park washrooms.
  * Installation of water meters to enable level 3 monitoring.

- Water recycling to increase to 18% from 16%.
  * Phase 2 of the process water wash-off recycling is set for implementation, aiming for water recycling by June 2024.
  * Recycling of QA condensate from the distillation process is targeted for completion by June 2024.

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.*

Yes

Comment

The following measures have been implemented to gain results shared in '20240423_Optimised_water_use' document:
- Utilization of 2.04m³ of water for the production of one ton of tobacco.
  * Maintenance of a water leakage log with all identified actions completed to 100%.
  * Introduction of partial automation in water data collection, employing QR codes for meter reading entries, Power BI dashboards for rapid data interpretation, and online tracking of water leakages.
  * Phase 1 installation of water misters in the main men's restrooms and Wazito Park facilities.
  * Installation of water meters for advanced level 3 monitoring.

- Increase in water recycling from 16% to 18%.
  * Implementation of Phase 2 in process water wash-off recycling, with a goal of achieving water recycling by June 2024.
  * Completion of QA condensate recycling from the distillation process is anticipated by June 2024.

3.3.3	*Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.*	Yes
Comment	This indicator did not apply to the facility.	
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.*	Obs.
Comment	The current progress status in achieving the water quality actions outlined in the water stewardship plan is as follows: - Quarterly monitoring of drinking water quality according to the established parameters (this monitoring is not legally required). - Quarterly water sampling and analysis reports, with action plans to address deviations from the specifications. This includes testing irrigation water, which beyond the legal requirements. The first quarter results showed high levels of Aluminium (0.97 against a target of < 0.2), Iron (0.38 against a target of < 0.3), and Total Suspended Solids (TSS) at 2 against a target of < 1 in borehole water. This led to a Root Cause Analysis (RCA) and an action where the water was deemed unfit for consumption, a point stressed to all employees. A further review of the second quarter results has been advised.	
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.*	Yes
Comment	Water quality represents a shared water challenge, and the facility has consistently monitored its process runoff according to the attached results, which show no exceedances. It is also conducting monitoring and testing beyond legal requirements, as indicated above.	
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.*	Yes
Comment	The facility plans to collaborate with BAT Kenya Nairobi on World Environmental Day to donate seedlings for planting in the Tana Catchment area. Additionally, they aim to engage in an afforestation activity within the Thika-Chania catchment. Onsite, the facility is set to plant 10 trees by December 1, 2024. Documentation of the tree planting activities is referenced as '34.20240424 Tree Planting Activity' & '20240603 - Afforestation and WED Activity Note - DO RB MM TO'.	
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.*	
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.*	Yes
Comment	The facility has ensured adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers on-site, as detailed in '20231014 WASH On site' and '20241305 WASH at Site'.	
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.*	Obs.

Comment	The facility provided information on provision of WASH facilities for staff provided in the following document; '3.2.2_and_3.6.2_WASH_at_Site (1)' however there was no mention on local communities. The facility has implemented on-site measures to prevent pollution from affecting the neighboring communities: - Sluice gates are closed during oil offloading operations. Refer to '3.2.2 Sluice Gate Installation.' - Spill kits and bund walls are utilized to contain any spillages. Details can be found in '3.2.2 Spill Kits and Bundwalls for any spillage points.' - Employees receive training on spill management, as outlined in '3.2.2 Training on spill management.'	
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.*	Yes
Comment	The water stewardship plan's indirect water use targets included: - Participation in the Kenya adopt a forest initiative by donating 300,000 seedlings in 2024 - Conducting a survival rate survey at Kikuyu Springs and Ndakaini - Planting 2,000 seedlings in the Tana Water Catchment area The implementation involved engaging with farmers as outlined in the document '20.20240513 Indirect Water Users-Outside.' Details on the implementation of the survival rate survey can be found in '18.20241305 BROA Sites Survival Rate Count 2022.'	
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 result of the site's engagement related to indirect water use, shall be identified.*	Yes
Comment	The facility presented a capacity building plan for farmers for 2024 in the document '20.20240513__Indirect_Water_Users-Outside', along with photographs of innovative technology for cultivating healthy seedlings that diverges from traditional methods by utilizing less water.	
3.8	*Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.*	
3.8.1	*Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.*	in progress
Comment	The facility failed to adequately collect all relevant information on catchment infrastructure and to comprehend the potential risks of extreme events to both existing and planned water-related infrastructure as outlined in section 1.5.6. Consequently, it missed the chance to devise a plan for engaging with and informing the owners of any shared water-related infrastructure about the site's concerns. ***Finding No: TNR-011025***	
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.*	Yes

Comment

The facility identified the following best practices for water governance in the catchment:

1. Engage with peer organizations and stakeholders to promote water stewardship:
- Raise awareness and engage in water stewardship.
- Participate in KAM Energy Awards and Audits.
- Include the water stewardship journey in the BAT Sustainability report (British American Tobacco Kenya - Financial sustainability reports (batkenya.com)).

2. Participate in multi-stakeholder platforms to address water issues in the catchment, such as membership in WRUA.

3. Support, participate in, or partner with public sector initiatives on water issues:
- Partner with local government/authorities on afforestation activities.
- Influence the municipality to introduce an effluent discharge license in the county.

4. Participate in the public review of new water treatment plants and in the Bring Njururi Back Initiatives and meetings.
Evidence of implementation of each of these initiatives is attached.

3.9.2 *Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.*

Yes

Comment

The facility has identified the following best practices for maintaining water balance:
- Optimization of water usage in processing to minimize overall consumption (reducing water intensity per ton of tobacco produced).
- Establishment of a leak detection program with corrective actions (digitalization and utilization of Power Apps).
- Automation of daily water usage readings, reporting, and tracking (using Power Apps).
- Recycling of boiler condensate and process wash-off water (Phase 1 and 2).
- Regular training for workers, incorporating water conservation into induction programs.
- Installation of mister/deaerator water-saving taps for a pilot project to monitor usage.
- Installation of Level 3 water meters for point-of-use monitoring.
- Recycling of QC water condensate.
Evidence of implementation of each of these initiatives was made available to the audit team.

3.9.3 *Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.*

Yes

Comment

The facility has outlined the following best practices for maintaining water quality:
- Installation of additional spill kits in the lubricant storage area
- Employee training on spill management procedures
- Performance of Legionella water testing for the Raised WT, Accounts block tank, and Admin block tanks
- Desludging interceptors to lessen the burden on the public sewer system
- Tree planting activities at Oldonyo Sabuk National Park (recharge zone) and along the Chania Thika River to combat soil erosion
- Execution of SVOC and VOC water analyses on groundwater, despite it not being a legislative requirement
- Collaboration with the Water Resources Authority to monitor borehole water tests.

Evidence of implementation of each of these initiatives is attached.

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.*

Yes

Comment	The facility has outlined the following best practices for the maintenance of Important Water-Related Areas (IWRA): - Restoration of riparian area conditions, including tree planting at the THIWASCO sewage plant and along the Chania River. - Rehabilitation of a community borehole/well. - Establishment of a regular physical/visual monitoring program to observe any changes or impacts on the IWRA catchment. - Annual planting of at least 10 trees in Wazito Park, which serves as an IWRA. - Estimation of the volume of water that infiltrates the ground during the rainy season, as Wazito Park acts as a recharge zone for the surface aquifer. - Placement of public communication posters at designated waterfalls as part of the "Bring Njururi Back" recreation task force initiative. Some of the actions are ongoing however implementation evidence was provided.

3.9.5 *Actions towards achieving best practice related to targets in terms of WASH shall be implemented.* Yes

Comment	The facility has identified the relevant sectors and catchment areas to establish best practices for providing equitable and adequate WASH services. The list includes: - Implementing a WASH project within the catchment area. - Constructing a room for mothers. - Distributing soap and petroleum jelly to employees. - Engaging Rentokil for the disposal of sanitary waste. - Installing bidets and providing sanitary disposal bins. - Supplying emergency female hygiene products. - Offering water to the community through a tank placed outside the GLT. - Providing bottled drinking water dispensers. - Completing a public toilet outside the GLT, benefiting over 500 community members. Some actions are still in progress, yet evidence of implementation has been provided.

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 evaluated.*	Yes
Comment	The facility conducted an evaluation of the Water Stewardship Plan, documenting the results in column O. The objectives were aligned with AWS outcomes, hence the assessment focused on the attainment of these targets.	
4.1.2	*Value creation resulting from the water stewardship plan shall be evaluated.*	Yes
Comment	The water stewardship plan's value creation has been assessed. For instance, in terms of economic benefit through volumetric water reduction to address water scarcity and reduced direct water usage, the site has seen a significant decrease in water consumption from 2017 to 2024. In 2017, the site's water usage was up to six times higher than in 2023 (60,112m³ compared to 9,767m³), achieving a volume saving of 50,345m³ by the end of 2023. This equates to an approximate saving of 3,473,805 KES in water bills. Consequently, this reduction in water drawn (both ground and surface) by the site reflects its dedication to the proper management of water resources.	
4.1.3	*The shared value benefits in the catchment shall be identified and where applicable, quantified.*	Yes
Comment	The shared value benefits were identified as follows: Social - Maintaining a positive relationship with policymakers, staying informed on water-related policies, and promoting initiatives that support responsible catchment practices within the community, as well as pollution prevention. Cultural and Social - Rehabilitating riparian zones and land reserves. Restoring water sources in the catchment area and WASH facilities, valued at over 2,000,000 KES. Economic - Ensuring equitable water usage for all, preventing the depletion of water resources, with 50,441M3 saved, benefiting 1,146 families through access to water from facility reduced withdrawal.	
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 response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.*	Yes
Comment	The facility issued a written annual review, which included an inventory of potential water-related emergencies and response plans, as there were no incidents reported in 2023.	
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.*	Yes

Comment	GLTP has employed a variety of methods to gather feedback from its stakeholders, as outlined below: a. Direct verbal communication with stakeholders via one-on-one meetings and telephone conversations. b. Online surveys. c. Group stakeholder meetings. d. Public participation forms. e. Participation in Energy Management Awards. The feedback obtained on the WSP was assessed and utilized to guide the revisions of the WSP.
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.* Yes
Comment	Column N (KPI Evolution) in the Water Stewardship Plan indicates whether the objective has been modified or added following an evaluation.

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.*	Yes
Comment	The facility held a Stakeholder Consultative Meeting on May 23, 2024, where it disclosed the site's water-related internal governance, including the roles of individuals responsible for adhering to water-related laws and regulations.	
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.*	Yes
Comment	On May 23, 2024, the facility held a Stakeholder Consultative Meeting to present its water stewardship plan and detail its contributions to the AWS outcomes. Additionally, the water stewardship plan was shared through email. Supporting evidence has been provided.	
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.*	in progress
Comment	The '20242105 Sustainability Report' presentation includes a summary of the site's water stewardship performance, detailing quantified achievements against targets on slide 6. ***Finding No: TNR-011606***	
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.*	Yes
Comment	The shared water-related challenges and the initiatives undertaken to tackle them were disclosed during the Stakeholder Consultative Meeting on May 23, 2024.	
5.4.2	*Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.*	Yes
Comment	The site's involvement in the Bring Njururi Back Initiative and tree planting efforts in the catchment area represents some of the actions taken to engage stakeholders and facilitate coordination with, as well as support for, public-sector agencies.	
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.*	Yes

Comment	There were no water related compliance violations	
5.5.2	*Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.*	Yes
Comment	There were no water related compliance violations	
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.*	Yes
Comment	There were no water related compliance violations	

Photographic Evidence from Audit

Interceptor no 2 Outside Tankfarm (Brown).jpeg

Electricity cable inspection manhole outside accounts block.jpg

Chemical Store in QA Lab.jpg

Bathroom at Main Gents.jpg

Tank 2 Bundwall containment.jpg

Washroom shower facilities-Gents.jpg

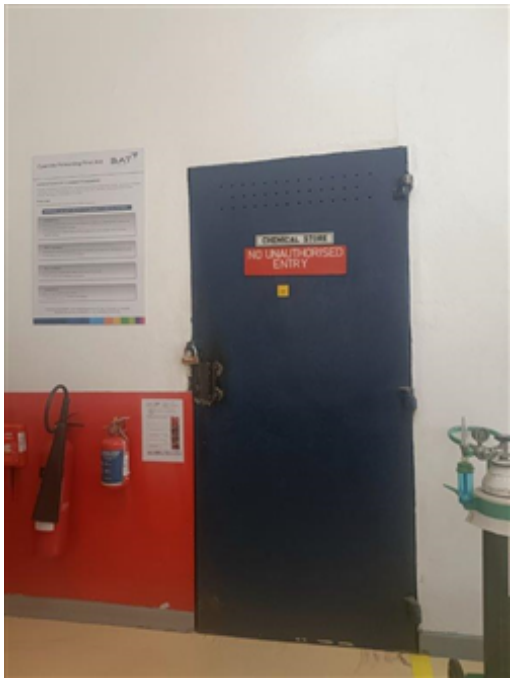
Raised Water tank.jpeg

Humidifier water tank at Store D.jpg

Water Dispenser QA Office.jpg

Raised Water tank.jpg

Fuel Offloading Area.jpg



Chemical Store in QA Lab.jpg

Municipal meters inlet into site.jpg

Sewer line exit from site.jpeg

Gray water recycling sedimentation and collection tanks.jpg

Gray water sedimentation tank.jpg

Inside Mother's room.jpg

Persons with disability washroom facility.jpeg

Fuel Offloading Area.jpg

Furnace Tank 02 Outside Boiler House.jpg

Sluice gate storm water.jpg

Storm Water 006 outside accounts block.jpg

Oil and Lubricants Store.jpg

Drinking Water Point outside Accounts block.jpeg

HFO Tank farm flooring.jpg

Bore Hole Water Metering.jpg

Washroom shower facilities- Ladies.jpg

Electricity cable inspection manhole outside accounts block.jpg

Yes

Municipal meters inlet into site.jpeg

Oil and Lubricants Store.jpg

Municipal Water Intake and Water Metering.jpg

Mother's nursing room.jpg

Bore Hole Water Metering.jpg

Mother's nursing room.jpeg

Bathroom at Main Gents.jpg

Inside QC Laboratory.jpg

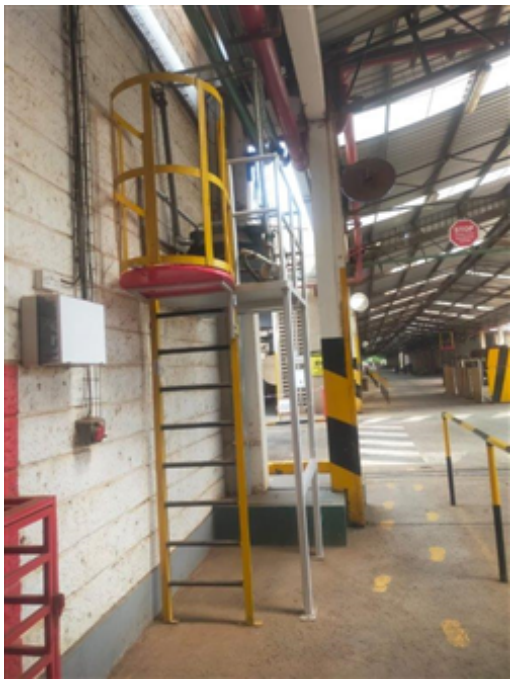
Drinking Water Point outside Accounts block.jpg

Sewerline no 042 outside hessian sorting area (Black).jpg

Raised Water Tank Outside Main Gents.jpg

Spill Kit inside QA Laboratory.jpg

Raised Water Tank Outside Main Gents.jpg



Humidifiers tank.jpg

Inside QC Laboratory.jpg

Municipal Water Intake and Water Metering.jpg

Sewerline no 042 outside hessian sorting area (Black).jpeg

Sewer line exit from site.jpg

Water Policy Outside QA.jpg

Persons with disability washroom facility.jpg

Interceptor no 2 Outside Tankfarm (Brown).jpg

Gray water recycling sedimentation and collection tanks.jpeg

Furnace Tank 02 Outside Boiler House.jpg

Previous Findings		
	All non-conformities raised in the previous audit have been satisfactorily closed.	Yes
Comment	There were no non-conformances raised in the previous audit.	