

Alliance for Water Stewardship (AWS)

Audit Number: AO-001591

SITE DETAILS

Site: Philip Morris Investments B.V. Jordan

Address: Jordan - Amman - Na'ur - Umm ALBasateen road - Madaba Triangle, 11941, Amman,

JORDAN

Contact Person: Isaam AbuFreiha
AWS Reference Number: AWS-000448

Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core

Date of certification decision: 2025-Sep-16

Validity of certificate: 2028-Sep-15

AUDIT DETAILS

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

Audit Type(s): Re-Certification Audit

Audit Start Date: 2025-Aug-12
Audit End Date: 2025-Aug-14
Lead Auditor: Nathalie Karam

Audit team participants:

Nathalie Karam, Lead Auditor

Site Participants:

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Rand Samara, Other Anoud Najada, Other

Hanna Nastas, IFMS Supervisor

Ibrahim Hammoudeh, Other

Fadi Abou Isiad, Other

Lujain Majdalanieh, Other

Issam Abu Freiha, Business and Development Manager

Anas Smeirat, Factory Manager

Mohammas Abu Rizq, Sustainability Manager

Bashar Khleif, Production manager

Mutasem Al Rabbai, Other

Layth Haddad, Factory Director

ghayth Al Najada, Other

Duygu Karan, Other



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ADDITIONAL INFO

Summary of Audit Findings: During the certification audit zero non-conformities and 3 observations were raised.

The audit team recommends re-certification of Philip Morris Investments B.V. Jordan at Core level. Scope of Assessment: The scope of services covers the recertification audit for assessing conformity of Philip Morris Investments B.V. Jordan (PMJO) against the AWS International Water Stewardship Standard Version 2.

PMJO is a tobacco company located in Na'ur, Umm Albasateen road - Madaba triangle, Amman 11941, Jordan, Coordinates: 31.857285484377645, 35.83183550276354. The assessment of the PMJO tackled all the facilities and processes on site i.e. primary unit, secondary unit, water well, water treatment, canteen, warehouses, utilities, and administrative building.

The facility is located in the catchment area of the aquifer body named Amman-Wadi Es Sir (A7/B2) which is one of the main 3 aquifer in the Amman -Zarqa basin.

The audit was conducted onsite on 12-15 August 2025.

The onsite site visit included the physical assessment of production line (primary and secondary), on site water well, water treatment unit, wastewater septic tanks, canteen, warehouses (liquid and solid material) and a catchment tour.

FINDINGS

NUMBER OF FINDINGS PER LEVEL Observation 3



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FINDING DETAILS

Finding No: TNR-019391

Checklist Item No: 2.4.1
Status: Open

Finding level: Observation

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: The site is encouraged to provide a clearer description of the process

through which input from public sector agencies is obtained for their

mitigation and adaptation plan.

Finding No: TNR-019529

Checklist Item No: 3.7.1
Status: Open

Finding level: Observation

Checklist item: Evidence that indirect water use targets set in the water stewardship

plan, as applicable, have been met shall be quantified.

Findings: The site has identified an indirect use target and provided evidence of

engagement and planned actions with the supplier. At this stage the target is still being implemented and no verified, quantified results (2024 baseline, 2025 actuals, measured savings) were provided to confirm the

target has been achieved.

Finding No: TNR-019392

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 site has clearly engaged the WWTP and communicated key

messages (shared challenges, test results, request for inclusion in expansion assessment). The evidence was provided that emails were

sent and a meeting occurred, whilst confirmation of

receipt/acknowledgement from the WWTP was not available.



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Report Details	
Report	Value
Report prepared by	Nathalie Karam
Report approved by	Carla Schmidt Oberdiek
Report approved on (Date)	12.September.2025
Surveillance	

Proposed date for next audit

2026-Aug-12

Stakeholder Announcements

Date of publication	Location
16/07/2025	Email to stakeholders
01/07/2025	Letters to stakeholders
17/02/2025	On site board
	Whatsapp communication - (reminder)
21/06/2025	Open day



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Catchment Information

Catchment Information

Catchment Name

The site is located within the Amman–Zarqa Basin in northern Jordan. This basin spans approximately 4,586 km² (4,074 km² in Jordan and 512 km² in Syria) and includes the capital Amman and the city of Zarqa. The basin is further divided into seven sub-catchments; the site is specifically situated within the Amman–Wadi As Sir (B2/A7) aquifer.

Water Supply & Discharge Catchment

The site relies on water resources from the Amman–Zarqa Basin, with groundwater as the primary source. The main surface water body in the basin is the Zarqa River, which drains into King Talal Dam, where treated wastewater is also blended with surface flows. Ultimately, discharges from the basin contribute to the Jordan Valley. Wastewater generated in the basin is conveyed to treatment facilities (including As-Samra Wastewater Treatment Plant) before release to the Zarqa River.

Groundwater Aquifers

Groundwater abstraction is primarily from the Amman–Wadi As Sir (B2/A7) aquifer, a major source for both domestic and agricultural use. This aquifer is highly productive and widely exploited, though increasingly stressed by overuse. It is recharged by rainfall infiltration across the highland areas, though recharge rates are limited by the semi-arid climate. In the Amman–Wadi As Sir (B2/A7) aquifer water levels are declining at an average rate of -1.9 meters per year, with projections of a cumulative 38-meter decline by 2030. Groundwater salinity varies across the basin, influenced by over-abstraction, urban pressures, and mining activities.

Catchment Water Service Providers

Water is supplied through national and municipal service providers that source from both surface and groundwater within the Amman–Zarqa Basin. Key water infrastructure includes the As-Samra Wastewater Treatment Plant, which treats most of Amman and Zarqa's effluent before discharge to the Zarqa River, ultimately reaching King Talal Dam. Treated effluent is reused for agriculture downstream in the Jordan Valley. Stormwater in urban areas is typically conveyed through surface drainage networks to wadis and eventually into the Zarqa River.

Catchment Features

Water Shortage: The basin is one of the most water-stressed in Jordan, with abstraction exceeding recharge by over 150%.

Flooding: Localized flooding occurs in wadis during seasonal rainfall events, but the basin is predominantly characterized by water scarcity rather than flooding.

Protected Areas: Environmentally sensitive zones exist, though they are under pressure from urbanization, industry, and agriculture.

Inter-Basin Transfers: Limited; the basin is largely self-contained, though some transfers exist within the national water network.

Climate: The catchment is situated in a semi-arid climate, with low and variable rainfall. Dominant Water Uses: The drainage basin supports intensive agriculture (particularly downstream of King Talal Dam), extensive urban settlements (Amman and Zarqa), and significant industrial activities (52% of Jordan's industries are in Zarqa).



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Picture3.jpg



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Client Description and Site Details

Client/Site Background

Philip Morris Jordan (PMJO) is a cigarette manufacturing company located within the administrative boundary of Greater Amman, approximately 15 km from the Desert Highway and 35 km from Queen Alia International Airport. The site includes administration offices, production facilities (primary and secondary), a water treatment plant, warehouses, chemical and waste storage, parking, and a canteen. Warehouses are divided between NTFs (non-tobacco finished goods) and finished goods.

The company's production is structured into two phases:

- Primary Process: Preparation and processing of imported tobacco and filter manufacturing. This phase involves direct water use.
- Secondary Process: Assembly, packing, and packaging of cigarettes for both domestic and export markets.

Production volumes for 2025 are projected at 3.59 billion cigarettes. Recent process adjustments include the introduction of tereá production and updated roles and responsibilities across site operations.

Water Sources:

- One on-site deep well abstracting from the Amman–Wadi Es Sir (A7/B2) aquifer within the Zarga Basin.
- Rainwater harvesting infrastructure present at the site.

Water Treatment Facilities: On-site treatment includes sedimentation, sand filtration, and reverse osmosis (RO) to ensure potable quality for production.

Water Use:

- Water is primarily used in the primary processing phase (tobacco preparation and filter making).
- Secondary production consumes minimal water.

Wastewater Treatment Facilities: The site operates three septic tanks: two for sewage and one for industrial wastewater.

Rainwater Harvesting Infrastructure: A rainwater harvesting station is operational, supplementing water resources.

Fire Water: Dedicated firefighting water storage and hydrant network are available on-site.

Other Infrastructure:

- Warehouses for raw material, NTFs, and finished goods.
- Waste storage areas and a chemical storage facility.
- Wastewater and Stormwater Discharge

Catchment Context

The site is located within the Amman–Zarqa Basin, specifically the Wadi Es Sir (A7/B2) aquifer catchment. The aquifer is recharged exclusively by rainfall. Water scarcity is the dominant challenge in this semi-arid region, and groundwater levels are declining due to over-abstraction.

Performance and Future Plans

- Water Efficiency: Since 2019, the site has improved its water efficiency index from 3.46 to 1.74 in 2025, achieving a 49% reduction in total water consumption.
- Continued division of warehouses between NTFs and finished goods.
- Adjustment in production processes, including tereá.
- Strengthened engagement with local stakeholders, including the Ministry of Agriculture, Naour Municipality, the Governor's Office, and the German University.
- Ongoing tree plantation programs to offset past land use changes.

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Picture5.png



Picture4.png

Summary of Shared Water Challenges

Summary of Shared Water Challenges

Shared Water Challenges - Summary

- Water Availability: Extremely scarce in Jordan.

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 Surface Water Quality: Pollution and degradation concerns.
 Groundwater Levels: Declining due to overuse.
 Freshwater Biodiversity: Impacted by reduced flows and quality.
- Flood Occurrence: Localized seasonal floods in wadis.
- Safe Water Access: Uneven availability across communities.



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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 site is located in Amman, within Naour Municipality, with stakeholder coordination confirmed

Site boundaries were mapped and presented; a 3D layout of different factory sections was shared. The map will be updated once the new project is finalized, as the design is still in early stages.

Water infrastructure is mapped, including 144 m³ and 950 m³ tanks, rainwater harvesting tanks, the on-site water treatment plant, and septic tanks.

The piping network was presented and will be updated after project completion.

Water-related infrastructure was mapped against main pollution sources.

Wastewater management: Septic tanks are mapped, with wastewater transferred to Ain Al Ghazal and then to Al Samra WWTP for treatment and agricultural reuse; ultimate discharge is into King Talal Dam and Zarqa River. Emptying and transfer are documented, and weekly inspections plus annual certified integrity checks are performed.

Rainwater harvesting is in place; non-harvested rainwater is directed to natural channels or government networks.

Water sources include the on-site deep well tapping Amman-Wadi Es Sir (A7/B2) aquifer and rainwater harvesting.

Catchment mapping includes surface water and groundwater areas within the Amman-Wadi Es Sir basin, Zarqa River 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.

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Comment

The site presented a comprehensive list of stakeholders categorized by industry, suppliers, community, customers, public sector, NGOs, and educational institutions; additional stakeholders were identified and included.

Shared water challenges were collected from stakeholders through questionnaires, open days, and direct communications, and documented per stakeholder group.

Stakeholders' power and interest were assessed, and influence-interest mapping was presented, showing prioritization of engagement based on these factors.

Relationship levels with stakeholders were analyzed, and stakeholders were mapped on the catchment map to reflect spatial relevance.

Evidence of communication was provided, including photographs. Special attention was given to public sector engagement, which faced challenges during the past year.

Stakeholder engagement analysis for the past 2 years shows significant improvement and is presented per stakeholder type (suppliers, government, industry, services, schools, universities, overall).

1.2.2 Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's

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

Yes

Comment

Influence levels were assessed per stakeholder group (suppliers, public sector, industry, community, NGOs, educational institutions), considering the stakeholders' interest, activities, and potential to impact water management.

The site mapped these influence levels visually and included them in the stakeholder engagement plan.

Evidence shows that high-influence stakeholders, such as municipal authorities and regulatory bodies, were prioritized for engagement, with documented communications and follow-ups.

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

The site maintains a comprehensive Emergency Preparedness Plan (updated 10/02/2025) covering fire, incidents and injuries, natural disasters, spillage, transport and traffic accidents, gas leaks, water-related incidents (e.g., septic tank flooding, water leakage), disease, and biological risks.

For each incident type, roles and responsibilities, critical areas, scenario-specific actions, and response procedures are defined.

An Emergency Response Team and a Special Situation Management Team are designated, with contact details documented, ensuring coverage of both defined and unforeseen emergency situations.

The site utilizes an incident reporting platform capturing all incidents, short- and long-term actions, root cause analyses, and corrective actions.

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



Comment

The site presented a detailed Sankey diagram illustrating all water inflows, losses, storage, and outflows.

The diagram is color-coded by water type, consistent with actual on-site infrastructure. Water sources include the deep well and rainwater harvesting tanks, which are now integrated into the site's water flow mapping.

Water losses are identified as:

- Evaporation from humidification processes and firefighting testing
- Reject water from treatment processes, which is largely reused on site.

Water meters and storage areas are mapped and tracked, enabling ongoing monitoring of consumption and losses.

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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

Yes

and low variances shall be quantified.

Comment The site quantified water inflows, outflows, losses, and storage changes for the full year. The

2024 water balance showed an in/out difference of 0.5%, indicating precise tracking. Historical water consumption trends from 2019 to 2025 (YTD) were presented, demonstrating a reduction of approximately 49% compared to 2019, despite increases in headcount and

production.

Water consumption trends were analyzed both within the year (seasonal variations) and

between years, with per-production ratios maintained or improved.

The site also tracked seasonal variations and adapted internal practices accordingly, for example, closing and cleaning rainwater harvesting tanks during dry periods, were in such case the volumes of water harvesting are excluded from the annual 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.



Comment

On-site water sources (tanks and well water) are tested for biological parameters annually and for physico-chemical parameters biweekly.

The site has documented procedures specifying testing frequencies, parameters, and responsibilities, along with a monitoring and sampling plan, budget, and follow-up process. Historical trends from 2021 to 2025 were presented, demonstrating consistency in water quality.

Wastewater is tested quarterly by a third-party certified laboratory and communicated to Al

Samra WWTP. In 2024, testing was performed monthly.

All water and wastewater results were within PMI standards and local regulatory limits. Comparisons between internal and external testing were conducted to validate internal results and ensure accuracy.

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

The site has identified and mapped potential sources of pollution, including:

- Chemical storage locations across the site
- List of chemicals stored and their exact storage points
- Hazardous waste storage locations

Spill kits have been mapped and distributed according to the identified risk areas. The site presented permits for collection and disposal of hazardous waste, ensuring regulatory compliance.

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

The site does not have any designated Important Water-Related Areas (IWRA).

Aware of the absence of IWRA, the site assessed its water-related infrastructure in terms of status, operational risks, and maintenance needs.

Improvements and ongoing maintenance measures have been implemented to ensure reliable and safe water operations.

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.





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Comment

The site provided annual water related costs for 2023, 2024 and 2025, including direct water charges, wastewater transfer and treatment costs, and water management costs (testing, utilities). The 2025 increase is attributable to a technological project intended to improve production efficiency and reduce water use. The site presented revenues/savings from water reuse measures, historic costs of initiatives from 2019 to YTD, and an assessment of water related value created (social, cultural and environmental)

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



Yes

Comment

The site has adequate WASH facilities for all personnel.

A new catering vendor certified to ISO 22000 has been engaged (certificate provided). Drinking water is distributed across the site, with supplier testing requirements in place. Showers and toilets are functional, clean, and verified during the audit.

The number of toilets and showers complies with local building codes, including consideration for gender-specific facilities.

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

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.

Cleaning schedules and checklists are implemented and maintained.

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

The site listed all suppliers, noting that the majority are located outside Jordan, with only two suppliers within the Amman-Wadi El Sir catchment.

One supplier provided data on water use for production of PMI Jordan-related products.

The second supplier does not currently track water usage.

The site has identified total water consumption for its inputs and is actively engaging with the second supplier to collect the missing water use information.

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



Comment

Three service providers operating within the catchment were identified:

- Security service
- Catering
- Cleaning

Water consumption for these providers is already included in the site water balance, and they do not use external water beyond what the site supplies.

Two off-site service providers were also identified (audit/tax and retail offices); their water consumption is negligible.

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

The site identified key public authorities responsible for water governance:

- Ministry of Agriculture and Irrigation
- Ministry of Environment

National water monitoring programs were recognized, including:

- National Project for Monitoring Water Quality in Jordan
- USAID Water Governance Activity (2021-2026)

Major water governance initiatives relevant to the site were highlighted:

- Al Samra Phase 2 Project
- Agaba-Amman Water Carrier
- Ain Al Ghazal Expansion
- Reduction of water losses in municipal network planning
- Improvement of wastewater treatment processes in Madaba

The National Water Strategy 2023–2040 was referenced to align site practices with national water stewardship goals.

1.5.2 Applicable water-related legal and regulatory requirements shall be

identified, including legally-defined and/or stakeholder-verified

Yes

customary water rights.

Comment The site tracks and ensures compliance using the Red Online system.

Additional legal requirements are identified through communication with a legal consultant. Evidence provided includes email communications and the site's regulation database showing compliance status.

Red Online system automatically notifies relevant personnel when new compliance

requirements arise or updates are needed.

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

✓ Yes

Comment

The site assessed the catchment water balance using governmental data and supplementary data from universities and ongoing research.

Jordan is recognized as one of the most water-scarce countries.

The site collected precipitation, evaporation, population distribution, surface water basins, and catchment-specific data, including catchment area, rainfall, and groundwater basins.

The catchment water balance is estimated at -78 MCM, highlighting high water scarcity influenced by climate change, illegal abstraction, and changing consumption patterns.

Main recharge sources include rainfall, irrigation, and surface water.

Groundwater abstraction is 190% of safe yield, indicating significant overexploitation. Trends in key parameters were presented, and a final deficit of 44.3 MCM was calculated at the catchment level.

Continuous improvements in catchment-level water balance assessment were demonstrated, despite limited available information.

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.



Comment

The site presented available data on catchment water quality, primarily sourced from the Ministry of Environment (MoE), Ministry of Water and Irrigation (MWI), and academic research. Government-led water quality monitoring is carried out twice annually, with a key focus on salinity trends. In addition, the site initiated its own monitoring program two years ago, conducting quarterly water quality testing in the identified IWRA through a certified third party. Results are systematically shared with government entities and stakeholders, including during the annual open day. Evidence of cooperation with input providers to expand the water quality dataset in the catchment was also presented.

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

The site identified seven Important Water-Related Areas (IWRA), describing their features and status. A risk-based assessment was conducted for each IWRA, covering aspects such as water quality, ecosystem degradation, and biodiversity. Information was sourced from stakeholder engagement activities (meetings, open days) and supported by scientific research. The IWRA were mapped in relation to the site's location, providing a clear spatial understanding of their interconnection with site operations.

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



Comment

The site identified and mapped key water-related infrastructure, including WWTP and King Talal Dam. Condition, functionality, and population served were documented, along with exposure to natural risks such as flooding. Infrastructure mapping was overlaid with a risk filter to assess vulnerabilities (flooding, scarcity, quality). A detailed assessment with prioritization of risks was presented, along with possible actions for maintenance and improvement of water infrastructure.

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



Comment

The site presented a map of WASH services in the catchment, highlighting challenges such as reliance on water tankers. Data was collected from NGO-led WASH assessments, the SDG 6 snapshot for Jordan, and sectoral studies. The adequacy of WASH in schools was also assessed. Additionally, the site reviewed WASH conditions in the context of the Syrian crisis and shared Jordan WASH top facts to provide a broader picture of sectoral challenges.

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.



Comment

Shared water challenges were identified through questionnaires, stakeholder feedback (open day, meetings), and local data sources. The site consolidated these inputs and defined the following shared water challenges:

- Water availability (Jordan among the most water-scarce countries)
- Maintaining surface water quality
- Maintaining groundwater levels
- Freshwater biodiversity impacts
- Flood occurrence within the catchment
- Safe water accessibility levels

The site has prioritized these challenges based on their significance and urgency, ensuring alignment with both catchment realities and stakeholder perspectives.

1.6.2 Initiatives to address shared water challenges shall be identified.



Comment

For each identified shared water challenge, the site documented corresponding initiatives in a consolidated spreadsheet, capturing both site-level actions and those led by other stakeholders within the catchment. These initiatives were identified through stakeholder consultation, direct communication, and review of available research.

The site further classified initiatives using an effort–impact analysis, highlighting where the site can contribute directly and where external initiatives should be supported or promoted.

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.

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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

Yes

costs and business impact.

The site conducted a comprehensive risk assessment at both catchment and site levels, using the WWF Water Risk Filter as a baseline.

Catchment level: Risks were assessed under two scenarios (optimistic and pessimistic, 10-year horizon) with stronger emphasis on the pessimistic case. The analysis considered likelihood and severity, with risks categorized as high, medium, or low across physical, regulatory, and reputational dimensions. Physical risks (scarcity, flooding, water quality, ecosystem impacts) and reputational risks were prioritized as high, while regulatory risk was assessed as low.

Site level: The same process was applied, focusing on water scarcity (failed source, source contamination, treatment failure), flooding, and wastewater quality compliance as high risks. Reputational risks were also included (cultural impacts, public awareness of breaches). In both cases, risks were linked to potential costs and business impacts, ensuring financial, sustainability, and regulatory considerations were included.

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

Comment

Building on the risk assessment in 1.7.1, the site prepared a detailed opportunity analysis (evidence in Excel) covering:

Risk-mitigation opportunities aligned with identified high-priority risks (scarcity, flooding, water quality, compliance, reputation).

Participation opportunities where the site can contribute directly (internal efficiency, infrastructure upgrades, stakeholder initiatives) or indirectly (collective action, data sharing, policy support).

Assessment and prioritization based on effort–impact analysis, with opportunities classified by their potential for water savings, cost reduction, operational resilience, and reputational/business value.

- 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.



Comment

The site identified a series of best practices in water governance within the catchment, including:

- Disclosure of water-related data to enhance transparency and support collective monitoring.
- Promotion of multi-stakeholder workshops and webinars to strengthen collaboration and knowledge sharing.
- Partnerships with NGOs to implement community awareness and educational activities on behalf of the factory.
- Capacity building for the agricultural sector, including training on sustainable irrigation and water governance practices.
- **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.



Comment

The site identified a series of best practices in sustainable water balance, including:

- Deployment of smart water meters to improve monitoring accuracy and detect anomalies.
- Rainwater harvesting systems to supplement water supply and reduce dependency on external sources.
- Installation of water-saving devices, such as aerators, to reduce overall consumption.



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1.8.3	Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	⊘ Yes
Comment	The site identified a series of best practices in water quality management, including: - Regular water testing in the catchment to track trends and detect emerging issues. - Testing water supplied by their input providers to ensure upstream quality. - Upgrading of sand filtration systems and other treatment infrastructure to maintain high water quality standards.	
1.8.4	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	⊘ Yes
Comment	The site has identified several best practice measures for maintenance of IWRAs, includin routine water quality testing of the identified IWRAs, installation of nesting areas to suppormigrating birds and enhance biodiversity, and regular cleanup/maintenance activities.	
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 site has identified a series of WASH best□practice measures, including donation of wat anks to support indigenous communities, distribution of aerators, and delivery of hygiene training and awareness programmes.	ıter



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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

The site has a signed water stewardship statement, signed by the new manager, which explicitly commits to: implementing and disclosing progress on water stewardship programs to achieve AWS outcomes; aligning site implementation with and supporting existing catchment sustainability plans; engaging stakeholders in an open and transparent way; and allocating resources to implement the Standard. The statement was disclosed via email (25/03/2025), communicated at multiple events, and posted on public noticeboards in the factory and other locations; a map of posting locations was provided and verified during the audit.

- **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.

Comment

Roles and responsibilities for water and wastewater compliance were updated this year to reflect personnel changes at the factory. The site uses the Red Online platform to track compliance obligations and receives weekly notifications listing required submissions or legal compliance actions. The site also works in parallel with a legal consultant and presented the documented legal approvals process during the audit.

- 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.



Comment

PMJO presented its environmental and AWS commitments as part of the global PMI strategy, outlining the organisation's vision and mission for water stewardship within the overall corporate strategy.



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



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- 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.

Comment

The site presented a Water Stewardship Plan (WSP) that sets specific goals and, for each target, defines actions linked to identified risks, shared water challenges and AWS outcomes. For every action the WSP specifies a timeline, responsible person/position, allocated budget, monitoring methodology and target at both site and catchment levels. The WSP includes measures across the five AWS outcomes (water governance, water balance, water quality, IWRA, WASH), examples include trainings and stakeholder events for governance, site and catchment water quality monitoring, water balance measures (aerator distribution, reuse of sand filter/RO reject, pipe inspection/maintenance, humidification optimization), IWRA tree planting campaigns (two locations) and WASH support (WWTP analysis support, water tanks for indigenous communities, student hygiene awareness). Action IDs linking WSP measures to best practices identified under Indicator 1.8 were also assigned and added to the 1.8 list.

- 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

The site presented a compiled risk register and a Business Continuity Plan (BCP) that is based on feedback from relevant public sector authorities. The site provided evidence of quarterly coordination meetings with public sector committee members (including MoE, MoL, MoH and the municipality) and records of visits/inspections by three ministries and the municipality that reviewed mitigation measures and BCP.

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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 site provided evidence of supporting catchment governance through WSP water governance activities: photographic evidence of an AWS open day and stakeholder celebration; sharing IWRA water testing results with public agencies; coordination with the municipality of Na'ur, the Ministry of Agriculture and the governor for tree planting; distribution of reusable bags in partnership with a women's NGO; and refilling water tanks for indigenous communities
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 site provides water to indigenous communities via a service provider, ensuring donated tanks are regularly refilled (evidence provided). The site also conducts catchment water quality testing and discloses results to public agencies and the community to help ensure access to safe water.
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.
Comment	The site implements a multi□path process to verify legal and regulatory compliance: (1) an internal monitoring plan managed by the legal compliance team that specifies actions to be monitored and records confirmation checks; (2) weekly reminders from the Red Online platform prompting evidence upload, with Red Online marking items as compliant after validation by senior management and flagging non□compliance where no evidence is uploaded; and (3) monthly EHS pillar meetings that assess and verify compliance status.
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	PMJO is fully compliant with legal requirements related to discharge, spills and disposal practices that could cause water contamination. This compliance status is recorded on the Red Online platform and demonstrates PMJO's adherence to the legal framework designed to protect water resources and the water rights of others.
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.
Comment	The site provided a summary of progress against water □ balance targets in the Water Stewardship Plan, reporting performance for each technological and social action. The site tracks a water index (water use per unit production) and has assessed savings for 2024 and 2025. Documented measures with quantified savings include reuse of sand □ filter backwash, reuse of RO reject water for toilets, reduced wash water for filter cleaning, installation of new water maters. Use of paraters and low □ flow parates, implementation of a rain □ baryosting.

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2 Quality StreetNorth Berwick, EH39 4HW, UNITED KINGDOM

water meters, use of aerators and low□flow nozzles, implementation of a rain□harvesting project, and inspection/maintenance of wells, sand filters and HVAC to reduce water demand.



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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.
Comment	The site has included several annual water □use and efficiency targets in its Water Stewardship Plan. Supporting evidence of water reductions (quantified volumes and the water □use index) is provided under Indicator 3.3.1 and cross □referenced to this indicator.
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	PMJO presented its water permit which contains specific conditions (points 3 and 4) that restrict the reallocation of water resources. The permit therefore legally prevents the site from reallocating water to social, cultural or environmental needs.
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.
Comment	The site presented performance versus targets for all water □quality targets in the Water Stewardship Plan. Evidence provided includes raw □water sampling and test results, wastewater testing, biological testing for water tanks, records of sand □filter maintenance to support reuse, and catchment water □quality testing.
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 yes where applicable, quantified.
Comment	The site provided wastewater testing results that were shared with the municipal WWTP; all parameters tested were within national limits. The site also conducts integrity/tightness tests on on □ site septic tanks, with results indicating no contamination from sewage storage.
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 site provided evidence of implementation of WSP practices for IWRAs, including water □quality testing of the identified IWRAs and tree □planting activities within the identified IWRAs.
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 yes workers onsite shall be identified and where applicable, quantified.
Comment	The site presented evidence of a valid food safety certificate for the catering service provider, proper drinking water distribution across the site, and awareness flyers/posters on hygiene. Toilets and showers were available in excellent condition, and their quality was verified during the audit

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the community water tank.

In addition, the site shared the drinking water testing results and provided evidence of refilling



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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.	Yes
Comment	PMJO conducted an activity day and distributed a questionnaire to 10 stakeholders; all returned responses indicated the site is not negatively impacting community access to safe water and sanitation. The site also provided monthly effluent testing results and records of regular truck inspections and permits from Es Samra.	
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.	Q Obs.
Comment	The WSP includes one indirect water use target to support an input provider in reducing their water consumption in 2025 versus 2024. The target is currently under implementation evidence provided includes communications between the two factories (emails) outlining the water saving actions the supplier plans to adopt.	١;
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 site presented engagement evidence with input suppliers and service providers consistent with Indicator 3.7.1: communications with an input provider describing planned water saving actions; distribution of the site's Sankey diagram to multiple suppliers and stakeholders for replication; and one service provider committing to donate water as a dire result of the site's influence.	ect
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.	Q Obs.
Comment	The site conducted a visit to Es Samra WWTP and provided a summary of the discussion covering shared water related challenges and the WWTP's planned expansion. The site shared wastewater testing results and IWRA testing results with the WWTP via email (emapresented as evidence). The site has requested to be included in the WWTP expansion assessment and is in ongoing communication; minutes of meeting (MoM) will be shared w Es Samra.	
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 site implemented water governance actions aimed at achieving best practice, including an activity day with stakeholders (questionnaires completed), visits and ongoing communication with public stakeholders, sharing of catchment water testing results with public authorities, and coordination with the public sector on tree planting activities that is linked to the adopted agricultural policies.

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



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Comment	The site provided evidence of implemented actions directed at water □ balance best practice: a rain □ harvesting system, installation of a new AHU, measures to improve boiler monitoring efficiency, reuse of RO reject water for toilet flushing, installation of aerators and addition of toilet tank banks, a 'risk □ hunting' day for awareness and identification of water □ balance improvement opportunities, and engagement with an input provider to help them reduce water consumption by 5%.	
3.9.3	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	⊘ Yes
Comment	The site provided evidence of actions implemented toward water □quality best practice, including catchment water □quality testing and a fabric □bag recycling initiative intended to prevent contamination from primary textile fabrication.	
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 site has implemented WSP actions to maintain IWRAs, including tree □planting to restor a damaged area near the Debbeen forest (an identified IWRA) and water □quality testing of the IWRA.	
3.9.5	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	⊘ Yes
Comment	The site presented evidence of WSP WASH actions, including regular refilling of community water tanks and distribution of recycled bags.	y



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	CTED 4: EVALUATE Evaluate the cite's north-warrant
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	Within the WSP the site evaluated implementation and performance against targets. Each action is tracked with status labels (complete, ongoing, planned); where targets were not reached the site recorded justifications and analysis. Performance charts mapping actions to WSP outcomes were presented, and a cost performance assessment was completed."
4.1.2	Value creation resulting from the water stewardship plan shall be evaluated. Yes
Comment	For the WSP's defined technological actions the site evaluated value creation across social, environmental and economic dimensions. The site also conducted cost□versus□performance assessments and completed cost□benefit analyses for the technological measures included in the WSP
4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified. Yes
Comment	For the defined technological actions in the WSP, the site analysed the value created in terms of social and environmental benefits and provided an assessment of shared social and environmental value at catchment level.
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 incidents shall be identified.
Comment	The site uses a Microsoft Form for immediate incident reporting. An annual report exported from the form shows 12 incidents recorded during the year; most were spills under 5 L, with 3 larger incidents. The 3 larger incidents underwent full root □ cause analyses and corrective action plans were implemented. Spills involved water only and, per local regulation, did not require reporting to public authorities.
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.
Comment	The site shared its water stewardship performance metrics and actively solicited stakeholder feedback via email. Minutes of the performance discussion from the stakeholder gathering day and insights from the AWS open day were provided; feedback was also requested using a questionnaire and stakeholder feedback emails were presented as evidence.
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.

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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.



Comment

The site provided multiple versions of the Water Stewardship Plan and held open □day consultations with stakeholders; feedback received during these engagements has been

incorporated into subsequent WSP versions.



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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	As part of its disclosure report the site disclosed its water related internal governance, including the positions accountable for compliance with water related laws and regulations. The disclosure was shared by email with more than 180 stakeholders.
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 Yes relevant stakeholders.
Comment	The site communicated the Water Stewardship Plan to relevant stakeholders: the WSP was presented at the AWS open day and the full WSP was shared by email with stakeholders.
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 yes minimum.
Comment	The site provided an annual Water Stewardship report that includes a summary of water stewardship performance and quantified performance against WSP targets. The report was shared with stakeholders via emails.
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 site provided an annual Water Stewardship report that discloses shared water related challenges in the catchment and describes the efforts the site is taking to address those challenges. The report was distributed to stakeholders by email and presented at the AWS open day.
5.4.2	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.
Comment	The site has undertaken stakeholder engagement and coordination with public sector agencies, demonstrated by email exchanges and meetings with multiple parties. Evidence of direct collaboration with the local authorities were presented. The site also engages NGOs focused on women's initiatives.
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.

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5.5.1	Any site water-related compliance violations and associated corrections shall be disclosed.	⊘ Yes
Comment	Annual disclose statement uploaded regarding environment signed by higher manage	gement .
5.5.2	Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.	✓ Yes
Comment	Not applicable, no violation	
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	Not applicable, no violation	
	Previous Findings	
	All non-conformities raised in the previous audit have been satisfactorily closed.	✓ Yes