

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)



Audit Number: AO-001646

SITE DETAILS

Site: **PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Kraksaan**
Address: Jalan Pb. Sudirman No. 17, Kraksaan,, 67282, Probolinggo, INDONESIA
Contact Person: Amanda Hadi IsTianti
AWS Reference Number: AWS-000647
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: **Certified Core**
Date of certification decision: 2025-Oct-07
Validity of certificate: 2028-Oct-06

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Initial Audit
Audit Start Date: 2025-Aug-19
Audit End Date: 2025-Aug-21
Lead Auditor: Hasudungan Sahat

Site Participants:
Sulung Prasetyo, Sustainability Manager
Hendriawan Wibowo, Plant Manager SKT
Oktani Rendra Purwanto, IFMS
Haris Oka Sanjaya, Sustainability
Kukuh Kristianto, EA
Imarotin Shofiyah, SPL
Yunita Sari, P&Q
Is Tianti Amanda Hadi, Sustainability
Wismono Danar Wismom, Sustainability

AUDIT TIMES

Dates	Audit from	Duration	Auditor	Description
2025-Aug-19	08:00:00 - 16:00:00	08:00	Hasudungan Sahat	
2025-Aug-20	08:00:00 - 16:00:00	08:00	Hasudungan Sahat	
2025-Aug-21	08:00:00 - 16:00:00	08:00	Hasudungan Sahat	

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ADDITIONAL INFO

Summary of Audit Findings: During the initial certification audit, no non-conformities and 3 observations were raised.

The audit team recommends certification of PT Hanjaya Mandala Sampoerna Tbk. – SKT Plant Kraksaan at the Core level.

Scope of Assessment: The scope of services covers the initial certification audit for assessing the conformity of PT Hanjaya Mandala Sampoerna Tbk. – SKT Plant Kraksaan against the AWS International Water Stewardship Standard Version 2.

PT HM Sampoerna Tbk's SKT Plant Kraksaan is a hand-rolled cigarette manufacturing facility located in Sidomukti, Karang Dampit, Kebonagung, Kraksaan District, Probolinggo Regency, East Java, Indonesia. The facility specializes in secondary processing operations, receiving cut filler from the primary processing facility at Sampoerna Surorejo Plant and focusing on packing processes. The plant employs 3,758 people as of August 2025 and covers a building area of 10026 m² within a 19455 m² (1.94 hectare) site. Water usage is limited to supporting activities, including glue preparation, sanitary facilities, equipment cleaning, and drinking water provision for employees, as water is not utilized in core cigarette production processes.

The facility is located within the geo-hydrological context of the Kertosono-Pengandangan watershed system in East Java. The site sits at the confluence of two major watersheds: the Kertosono Watershed (65.92 km²) and the Pengandangan Watershed (23.04 km²), with the Kandangjati Sub-Watershed (14.43 km²) positioned between them. The plant's groundwater supply originates from Mount Argopuro through deep wells that access intergranular space aquifers composed of alluvial deposits, including sand, gravel, conglomerate materials, tuff, and breccia. The aquifer system consists of both shallow aquifers dominated by sandy materials and deep aquifers with sand and gravel composition. Groundwater flow follows a southeast to northwest pattern, moving from higher elevation recharge areas above 1,550 meters to lower elevation discharge zones where the plant is located. The facility discharges treated wastewater into the nearby Kandangjati River, which connects to the broader watershed drainage system flowing toward Kali Penjalin and Kali Besuk.

The audit was conducted on-site on August 19-21, 2025.

The onsite visit involved assessing various elements, including the site's water infrastructure, main process areas, the wastewater treatment plant (WWTP), the IWRAs' water spring, glue production unit, wastewater discharge points, as well as chemical and fuel storage areas and activities that were examined during the audit.

The following external stakeholders were interviewed during the audit: Environmental Agencies of Probolinggo Regency (Government), UPT Welang-Pekalean (Water-related Agencies), and Local Government (Kraksaan District).

FINDINGS

NUMBER OF FINDINGS PER LEVEL

Observation	3
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FINDING DETAILS

Finding No:	TNR-020090
Checklist Item No:	1.3.8
Status:	Open
Finding level:	Observation
Checklist item:	Levels of access and adequacy of WASH at the site shall be identified.
Findings:	Site has identified and provide appropriate toilet, free and accessible drinking water including monitoring the all WASH facilities by third parties. Additionally, the site conducted the mosquito larvae vector analysis. Based on the report from 4 June 2025, it was found that 4 out of 7 locations did not meet the environmental health requirements in accordance with Minister of Health Regulation No. 2 of 2023 regarding the number of larvae.
Finding No:	TNR-020103
Checklist Item No:	2.3.2
Status:	Open
Finding level:	Observation
Checklist item:	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.
Findings:	The site has established 25 initiatives as part of its improvement plan. A few observations are noted: - The plan is action-based and is missing overall targets that the site aims to achieve with the planned actions or initiatives. - Actions aimed at addressing the findings from the mosquito larvae vector survey conducted on June 4, 2025, are not yet included. Whilst the site has been doing internal hygiene and sanitation inspections related to this issue, such as inspections in the company canteen area, it remains unclear how the effectiveness of these measures in eliminating the mosquito larva vector will be assessed.
Finding No:	TNR-020104
Checklist Item No:	3.1.1
Status:	Open
Finding level:	Observation
Checklist item:	Evidence that the site has supported good catchment governance shall be identified.
Findings:	There is missing specific evidence of direct participation in governance processes, capacity building of agencies, ministries and other water management bodies, or transparency mechanisms beyond the stakeholder dialogue process.

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Report Details

Report	Value
Report prepared by	Hasudungan Sahat
Report approved by	Ozge GOKMEN
Report approved on (Date)	30/09/2025

Surveillance

Proposed date for next audit
2026-Aug-17

Stakeholder Announcements

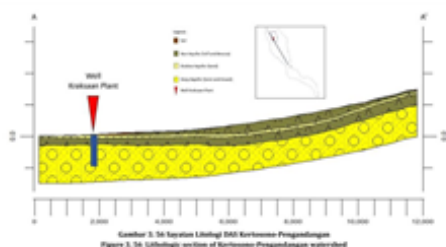
Date of publication	Location
25/06/2025	Radar Bromo
11/08/2025	AWS Website
11/08/2025	WSAS Website
Comment	Two weeks prior to the scheduled audit, the site requested to reschedule the audit originally planned for August 18–20, 2025, proposing instead the dates of August 19–21, 2025, due to the Indonesian government’s subsequent declaration of August 18 as a national public holiday — an announcement made after the original stakeholder communication had been published. Following internal consultation with the Legal team, it has been determined that revising or republishing the stakeholder announcement is not advisable, as doing so may create public confusion and could be misinterpreted as contradicting official government policy, for which there is no formal basis to amend the previously communicated dates. Importantly, the site remains in full regulatory compliance, having issued the stakeholder notice more than eight weeks ahead of the original audit date; therefore, no further action is required from a compliance standpoint.

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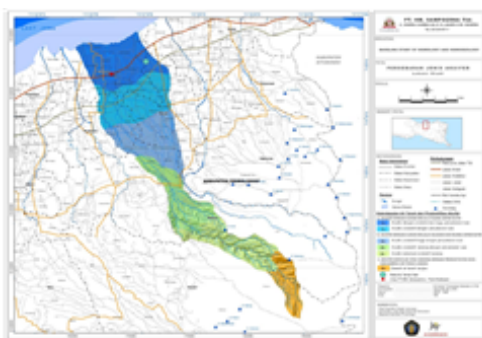
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Catchment Information



Type of Plant Aquifer.png



Aquifer Distribution.png



Catchment Area of PMI Kraksaan.jpg

Catchment Information

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Catchment Name

The PT HM Sampoerna Kraksaan Plant is located within the Kertosono Watershed and Pengandangan Watershed, with the Kandangjati sub-catchment situated between these two major watersheds. The treated wastewater from the facility is discharged into the Kandangjati River, which connects to both the Kertosono and Besuk Rivers, establishing hydrological relevance to all three catchment systems.

Water Supply & Discharge Catchment

The site relies on the Kertosono Watershed and Pengandangan Watershed for its water supply, specifically utilizing groundwater from the Kandangjati sub-catchment area that lies between these watersheds. For discharge, the treated wastewater from the PT HM Sampoerna SKT Plant Kraksaan is released into the Kandangjati River, which flows into Kali Penjalin and eventually connects to Kali Besuk in the Pengandangan Watershed. The facility does not utilize desalination plants or discharge into maritime bodies.

Groundwater Aquifers

The groundwater system in the Kraksaan region consists of both shallow and deep aquifers composed of sand and gravel (conglomerate) formations that flow from the Southeast (recharge area) to the Northwest (discharge area). The recharge zone is located above 1,550 meters above sea level, where rainwater and surface water infiltrate through the permeable sand and gravel layers into the ground to become groundwater. The shallow aquifer follows surface morphology patterns within the sand and gravel conglomerate structure, while the deep aquifer flow has been confirmed through geoelectric survey interpretations of the same geological formations. Both sand and gravel aquifer systems exhibit similar flow patterns, moving from higher to lower elevations due to gravitational forces through the conglomerate matrix. PT HM Sampoerna Kraksaan is positioned in the Northwest within the downstream discharge zone, where groundwater naturally emerges through springs at lower elevations from these sand and gravel formations.

Catchment Water Service Providers

PT HM Sampoerna Kraksaan does not utilize external water service providers and instead relies on direct groundwater extraction through a deep well system. The facility operates its own internal water treatment system that purifies the groundwater before consumption. For wastewater management, the plant operates a Wastewater Treatment Plant (WWTP) that processes domestic wastewater generated from toilet use, hand washing, and equipment cleaning activities. Under Liquid Waste Disposal Permit No. 503/008/426.116/2018, the treated effluent is discharged into the Kandangjati River located east of the plant. Rainwater and stormwater are channeled through the plant's internal drainage system, which connects to the municipal drainage network.

Catchment Features

The Kertosono-Pengandangan watershed system exhibits several critical characteristics that impact the site's water management context. Flooding represents a significant concern, with the InaRisk flood hazard maps indicating a flood risk index ranging from low to high (0-0.8) across the watershed. The upstream areas maintain low risk levels, while downstream areas, including the Kraksaan Plant location, face moderate to high risk due to flat terrain and dense settlements, with the plant site specifically having a moderate flood risk index of approximately 0.6. Regarding sanitation infrastructure, East Java Province achieved 66.39% household access to proper sanitation in 2024, with Probolinggo City performing significantly better at 91.59%, though areas within the Kertosono and Kandangjati Watersheds remain below the provincial average. Access to safe drinking water shows better performance, with East Java reaching 96.93% coverage in 2024 and Probolinggo Regency closely matching at 96.90%. The watershed system operates within Indonesia's tropical climate zone, and the drainage basin characteristics include a mix of residential settlements, traditional markets, and industrial facilities, with the downstream areas experiencing higher flood vulnerability due to topographical and development patterns.

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Client Description and Site Details



PMI SKT Plant Kraksaan.png



Gambar 1.4 Peta Lingkup Fisik
Figure 1.4 Physical Scope

Physical Scope.png

Client/Site Background

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Site Location

PT Hanjaya Mandala Sampoerna Kraksaan Plant is located at Jalan Pb. Sudirman No. 17 Sidomukti, Karang Dampit, Kebonagung, Kecamatan Kraksaan, Kabupaten Probolinggo, Jawa Timur 67282, Indonesia. The facility is situated in the Kraksaan sub-district of Probolinggo Regency in East Java Province.

Briefly Describe Surroundings

The site is situated within a residential area, with a traditional market located closely to the east of the Kraksaan Plant. This positioning places the facility in a mixed-use environment that combines residential housing with local commercial activities typical of Indonesian urban settlements.

Describe What the Site Produces

PT HM Sampoerna Kraksaan Plant is a hand-rolled cigarette manufacturing facility that specializes in secondary processing operations. The plant receives cut filler from the primary processing facility located at Sampoerna Sukorejo Plant and focuses solely on the packing process. The primary raw materials used in production include cut filler, cigarette paper, and packaging materials. Water is not utilized in the core production process but is limited to supporting activities such as glue preparation and sanitary hygiene, including toilet facilities, cleaning of tools, and provision of drinking water for employees. The plant does not operate boilers or cooling towers and therefore does not consume water for energy production purposes.

Describe the Water-Related Infrastructure

The Kraksaan Plant maintains several water-related infrastructure systems on site:

1. Water sources: Deep well system for groundwater extraction
2. Water treatment facilities: Water purifier system for drinking water treatment
3. Water use for production: Bottled water is utilized in supporting activities for glue-making processes
4. Water use in energy facilities: Not applicable as the facility does not operate boilers or cooling towers
5. Wastewater treatment facilities: Wastewater Treatment Plant (WWTP) with Biofil system for domestic wastewater processing
6. Cooling towers: Not present at the facility
7. Rainwater harvesting infrastructure: Not specified in current documentation
8. Stormwater management infrastructure: Storm drainage system integrated with the municipal network
9. Fire water: Not specified in current documentation
10. Other infrastructure: Infiltration wells and biopore systems for water management

Describe Where the Wastewater and Stormwater are Discharged

Wastewater at Kraksaan Plant is generated from domestic sanitation and hygiene activities, including toilet use, hand washing, and appliance cleaning. The wastewater is collected through five biofil units located throughout the facility, which are connected by a sewage pipe system to the central Wastewater Treatment Plant (WWTP). Following treatment processes at the WWTP, the treated effluent is discharged into the Kandangjati River, located to the east of the Kraksaan Plant, under Liquid Waste Disposal Permit No. 503/008/426.116/2018. Rainwater and stormwater are channeled through the plant's internal drainage system, which connects to the municipal drainage network for ultimate discharge.

Provide a Short Description of the Site

The PT HM Sampoerna Kraksaan Plant employs a total of 3,758 people as of August 2025, making it a significant local employer in the region. The facility covers a total site area of 19,455 square meters with a built-up area of 10,026 square meters, representing a substantial industrial footprint within the Kraksaan area. The site consists of manufacturing buildings, administrative facilities, and supporting infrastructure necessary for cigarette packing operations, wastewater treatment, and employee services.

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Summary of Shared Water Challenges

Summary of Shared Water Challenges
According to the information provided on the site, questionnaires were distributed, and data were collected. After summarizing the shared water challenges, the site categorized the results based on the total number of stakeholder responses. Subsequently, an internal review was conducted, and the findings were cross-checked with water-related agencies and expert consultants from Brawijaya University. Through this thorough process, the site was able to determine the final priorities.

The analysis revealed ten shared water challenges affecting the site and its catchment area: flooding, flash flooding, forest and land fires, water quality issues in the catchment (specifically, BOD levels), inadequate sanitation and hygiene in the area, drought risk, excessive water use for municipal purposes, saltwater intrusion, loss of biodiversity, and coastal erosion.

0.0.1 Water Source & Discharge Locations

Table with 2 columns: ID/Label and Description/Status. Row 1: 0.01, Have any water source or discharge locations been visited during the audit, if so, which and where? If none were visited, please provide justification. Yes. Row 2: Comment, During an audit, the auditor visits the water source from a deep well on-site and the discharge location near the plant (+- 2 meters from the site).

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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.


Yes

Comment The site has documented its boundaries, water infrastructure, and discharge points from the site. The site operates deep wells as its primary water source, extracting groundwater that originates from Mount Argopuro through sand and gravel (conglomerate) formations. The groundwater system consists of both shallow and deep aquifers that flow from Southeast (recharge area) to Northwest (discharge area), with the recharge zone located above 1,550 meters above sea level. The facility maintains a 16,000-liter clean water storage tank, water meters, distribution networks serving toilets, sinks, canteen facilities, drinking water purifiers across five units, and fire protection systems with hydrants and 30 m³ capacity fire tanks.

The facility operates a WWTP that processes all site wastewater, with treated effluent discharged into the Kandangjati River. The site affects and depends upon three watershed areas: the Kertosono Watershed, Pengandangan Watershed, and the Kandangjati Sub-watershed (which is part of the Kertosono Watershed system). PT HM Sampoerna Kraksaan is positioned in the Northwest within the downstream discharge zone, where groundwater naturally emerges through springs at lower elevations from sand and gravel formations.

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

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Comment The site has identified 47 stakeholders across internal, external institutional, and external industrial categories within the Kertosono, Kandangjati, and Pengandangan watersheds. The stakeholder identification process covered government authorities (Environmental Agency - Probolinggo Regency, East Java Environmental Agency, East Java Energy and Mineral Resources Agency, East Java water resources public works office, Probolinggo health office), water service providers (PDAM Probolinggo, UPT Welang Pekalen), academic institutions (Brawijaya University), NGOs (Averroes Community), local communities (Kraksaan Wetan Village, Kebonagung Village), healthcare facilities (RSUD Waluyo Jati, RS Graha Sehat), industrial entities (PT Indo Vaname Perkasa, PT Tanjung Makmur Primadona, PT Tandjoeng Marina Agung), media organizations, and internal stakeholders including employees and service contractors.
The Environmental Agency - Probolinggo Regency and UPT Welang Pekalen represent the site's ultimate water sources and receiving water bodies. The Environmental Agency oversees environmental protection and water quality control within the catchment area, while UPT Welang Pekalen manages the Kertosono and Pengandangan watersheds, including river systems and flood control infrastructure that receive the site's treated effluent.
The site specifically engaged vulnerable and minority communities through targeted programs. Women's participation was ensured through PKK (Women's Family Welfare Movement) members who served as community cadres in the Clean and Healthy Living Education Program conducted on May 7, 2025, reaching 30 participants across Kraksaan District sub-districts. The engagement documented that Indigenous peoples are not present in the Kertosono-Pengandangan Watershed area based on BRWA (Indigenous Territory Registration Agency) mapping, which shows no registered Indigenous territories in Probolinggo Regency within the site's physical scope.
Stakeholder consultation on water-related challenges occurred through multiple engagement methods spanning November 2024 to July 2025. The AWS Stakeholder Forum on February 20, 2025, brought together 69 participants representing 27 stakeholder organizations, where 61% of participants confirmed water-related risks, including Water, Sanitation and Hygiene (WASH) issues, flooding, and tidal flooding. Individual consultations included baseline study collaboration with Brawijaya University (November 2024 to February 2025), manpower department toilet facility validation visits (March 2025), emergency stakeholder engagement with housing authorities for leachate water processing, and community socializations on water management (November 2024) and clean living behavior (May 2025).
The site developed a Stakeholder Power, Interest, and Engagement Matrix categorizing stakeholders into four engagement approaches: Key Players requiring close management and partnership (Environmental Agency - Probolinggo Regency, Probolinggo health office, Puskesmas Kraksaan, Averroes Community), stakeholders requiring satisfaction through collective engagement (Environmental Agency East Java Province, East Java Energy and Mineral Resources Agency), stakeholders requiring information sharing and awareness raising (industrial entities, communities, academic institutions), and least important players requiring monitoring (media organizations).

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

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Comment The site has established a bidirectional influence framework to assess stakeholder relationships across the Kertosono, Kandangjati, and Pengandangan watersheds. Using a Stakeholder Influence and Interest Matrix, the site evaluates both the level of influence the site has on each stakeholder and the influence the stakeholder has on the site, categorizing them as HIGH, MEDIUM, or LOW. Key players with HIGH mutual influence include the Environmental Agency – Probolinggo Regency and the Probolinggo Regency Health Office, due to their regulatory authority over environmental permits, wastewater discharge, and public health standards. These entities are classified as "Key Players for Driving Change," requiring formal partnerships and collaborative action. Similarly, Averroes Community, an environmental NGO, holds HIGH influence in both directions through reputational impact and active engagement in water stewardship programs. Stakeholders with HIGH influence over the site but LOW reciprocal influence—such as the East Java Energy and Mineral Resources Agency, East Java Water Resources Public Works Office, and UPT Welang Pekalen—are categorized under "Collective Engagement." These agencies regulate groundwater use, river management, and flood control, making them critical for compliance, though the site's influence on their broader mandates is limited. Local communities (Kraksaan Wetan and Kebonagung Villages) and industrial neighbors (e.g., RSUD Waluyo Jati, PT Indo Vaname Perkasa) also have HIGH influence due to shared water resources and social license to operate, while the site's influence on them remains LOW. The site engages these groups through awareness-raising initiatives, forums, and community projects such as waste management renovations and clean living behavior socializations, aligning with the "Raise Awareness" strategy for stakeholders with high interest but low power.

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 Site has identified potential water-related emergencies and has documented a response plan to address them. These responses are integrated into the site's comprehensive Emergency Response Plan (ERP), which includes specific procedures and practical drills designed to address emergencies that could impact water resources, such as supply interruptions or contamination events. The emergency management structure is formally defined, with a designated Site Commander and coordinators for various functions, including safety, security, and medical response, to ensure a structured reaction to any incident. The facility has established and documented specific emergency procedures for various water-related scenarios. These include "PGS-KRS-002 Emergency Procedure for Water Supply", "PGS-KRS-003 Emergency Procedure for Drinking Water", and "PGS-KRS-004 Emergency Procedure for WWTP" (Wastewater Treatment Plant), also referred to as "Instruksi Kerja Tanggap Darurat IPAL". These procedures detail prevention and response systems, such as ensuring 24-hour facility security, maintaining adequate lighting and safety signage, having fire suppression equipment available, and establishing clear communication networks with the internal Emergency Response Team and external services like the local fire department. To ensure preparedness, the site conducts regular emergency drills according to a defined schedule. The schedule explicitly includes drills for "Tumpahan Bahan Kimia" (Chemical Spills), which pose a direct risk to water quality. A detailed report documents a diesel fuel spill drill conducted on December 2, 2024. This exercise simulated a diesel overflow at the generator set area, testing the team's response in containing the spill and managing a related personnel injury, thereby demonstrating a practical application of its plan to prevent hazardous waste from contaminating the environment. Further evidence of this proactive approach includes reports and scenarios for oil spill drills conducted in previous years, reinforcing the site's commitment to regularly testing its response to potential water contamination incident

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

Yes

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Comment	The site has identified and mapped all inflows, losses, storage, and outflows. The site utilized a Sankey diagram to calculate and visualize the water balance, systematically tracking all onsite water movements from source to discharge. This schematic diagram identifies incoming water primarily through a deepwell source with supplementary inputs from glue production processes, and traces these flows through distribution systems including main water tanks, secondary storage tanks, and fire water tanks. The diagram clearly delineates water usage across production activities, domestic consumption points including toilets and washing facilities, drinking water stations, gardening irrigation systems, and specialized industrial applications such as equipment cleaning and glue mixing operations. The site's water flow mapping encompasses complete treatment and discharge pathways, showing wastewater collection and processing through an onsite wastewater treatment plant facility. The diagram illustrates water storage components including retention systems and biofiltration units that temporarily hold volumes during treatment processes. All discharge points are clearly marked, including absorption to land surfaces, directed outflow to receiving water bodies, and connections to hazardous containment systems. The mapping identifies system losses as unaccounted water volumes within the overall balance, while the flow diagram demonstrates that treated effluent follows established discharge routes through the wastewater treatment system before final environmental release.	
1.3.3	<i>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.</i>	 Yes
Comment	The site has identified and mapped all inflows, losses, storage, and outflows through a comprehensive Sankey diagram that visualizes the water balance. It shows a total inflow of 83.61 cubic meters, with deep well sources contributing 83.46 cubic meters, accounting for 99.81% of the total input. Glue production processes add 0.16 cubic meters, representing 0.19% of the total inflow. Water flows are traced through distribution systems, which include main water tanks with a capacity of 16 cubic meters, secondary storage tanks of 1 cubic meter, and fire water tanks of 30 cubic meters. Usage is clearly delineated across production activities, which consume 0.16 cubic meters for glue products, and domestic consumption points total 4.41 cubic meters for drinking water, representing 5.27%. Gardening irrigation requires 16.01 cubic meters, representing 19.15% of total consumption, with various industrial applications occurring throughout the facility. The site's water quantification efforts have faced implementation challenges that have impacted the tracking of annual variance. Reliable data collection was limited to the period from July 17 to August 4, covering total outflows of 81.70 cubic meters, which represents 97.72% of total input. During this monitoring period, wastewater treatment processed 57.93 cubic meters, accounting for 69.28% of total flow, while retention systems handled a total of 7.37 cubic meters. This included 3.20 cubic meters in biofiltration units (3.83%) and 4.17 cubic meters in wastewater treatment plant retention (4.99%). The facility encountered difficulties in accurately calculating water flows during earlier periods. Early sensor implementation to measure influent to the wastewater treatment plant faced technical errors. System losses were quantified as 1.91 cubic meters, representing 2.28% of unaccounted volumes within the overall balance. The complete treatment and discharge pathways show all discharge points, including absorption to land surfaces, outflows to receiving water bodies, and connections to hazardous containment systems. Total system efficiency reached 97.72% during the documented operational period.	
1.3.4	<i>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.</i>	 Yes

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Comment	The site has identified water quality through a scheduled external monitoring program. The primary water source, a deepwell, is tested every six months against the Ministry of Health Regulation No. 32/2017, with laboratory results from April 2025 confirming that all parameters, including pH, Total Dissolved Solids (TDS), nitrates, and heavy metals, are well within regulatory limits. Water provided for consumption, including bottled water and purified water from a Yamaha O2 unit, is also monitored. Lab tests from July 2025 show that the bottled water meets all microbiological and physical standards set by the Ministry of Health. The site's effluent, discharged from the Wastewater Treatment Plant (WWTP), is monitored monthly for key parameters like TSS, BOD, and COD, ensuring compliance with the East Java Governor's Regulation No. 72/2013. For drinking water sources, the monitoring covers two locations: the Mushola clean water system and the Air Bawah Tanah (ABT) deepwell system, both tested according to Health Minister Regulation No. 02/2023. Key quantified parameters include microbiological indicators (Escherichia Coli and Total Coliform both at 0 CFU/100 mL, meeting the regulatory limit of 0), physical properties with Total Dissolved Solids at 118-120 mg/L (well below the 300 mg/L limit), turbidity at 0.11-0.12 NTU (significantly under the 3 NTU limit), color at 6.82-8.99 Pt/Co (within the 10 Pt/Co limit), and temperature at 29.7-29.8°C. Chemical parameters show pH levels at 7.60-7.82 (within the 6.5-8.5 range), dissolved nitrate at 0.54-0.63 mg/L (well below 20 mg/L limit), dissolved nitrite at 0.018-0.019 mg/L (under 3 mg/L limit), hexavalent chromium below detection limits (< 0.008 mg/L vs. 0.01 mg/L limit), and dissolved iron and manganese both below detection limits (< 0.04 mg/L vs. 0.2 and 0.1 mg/L limits respectively). Annual and seasonal variances are quantified through multi-year trend charts for all monitored water types from 2022 to 2025. While deepwell and drinking water quality remain consistently stable and well below regulatory limits, the trend data for wastewater effluent reveals occasional challenges and variances. For instance, there were notable spikes in BOD and COD levels in February 2022 and COD in April 2023 that exceeded the established limits, indicating periodic threats to good water quality status that are actively tracked. To assess the impact on the environment, the site has also identified monitoring points in the receiving water body ("Badan Air") both upstream and downstream of the discharge point, with sampling scheduled every six months according to Government Regulation No. 22/2021.	
1.3.5	<i>Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.</i>	 Yes
Comment	The site has identified potential sources of water pollution and has compiled a list of chemical materials available during the audit. At every point that could potentially cause pollution, the site provides spill kits. Additionally, some points are also guarded by a ban wall to prevent spillage from spreading directly to the environment.	
1.3.6	<i>On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.</i>	 N/A
Comment	No On-site IWRA's	
1.3.7	<i>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.</i>	 Yes

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Comment The site has identified and documented water-related costs in "1.3.7 Water related Cost Kraksaan Plant", which includes deep wells monthly payments, portable drinking water gallons, technological maintenance (such as piping system improvements across three phases, WWTP quality performance upgrades, deepwell pump rejuvenation, drinking water purifier system upgrades, etc.), wastewater treatment plant operations, water quality testing (drinking water monitoring, wastewater monitoring, environmental health monitoring, etc.), social activities (such as clean living behavior education, collaborative tree planting, river normalization, water bodies monitoring, AWS stakeholder forum 2025, etc.), and others (AWS certification audit). While the site generates no direct water-related revenues, it has quantified economic value through cost avoidances totaling \$3,359 from regulatory compliance, water efficiency improvements, and operational reliability. Environmental value includes zero untreated wastewater discharge and BOD/COD levels well below regulatory limits, while social value encompasses community water stewardship programs supporting SDG 6 and 12.

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


Obs.

Comment The site has identified and provided appropriate toilets, as well as free and accessible drinking water, and the monitoring of all WASH (Water, Sanitation, and Hygiene) facilities by third parties. The WASH facilities at the site include:

- Six water purification systems with laboratory testing,
- A multi-stage purification process that includes carbon filters and UV sterilization,
- Four canteens with certified food handlers,
- Toilet facilities are located across 11 locations, including options accessible to individuals with disabilities.

Based on the condition, there is a shortfall of 7 women's toilets, with 91 existing toilets compared to the 98 required for 3,771 female employees. The facility operates a total of 95 toilets (91 for females and 4 for males) for 3,931 employees, along with 22 handwashing stations distributed throughout the offices, production areas, canteens, and toilet facilities.

The site has formally reported to the Probolinggo Regency Manpower Agency about the insufficiency of toilet facilities, which is ascribed to the limited land area available for construction. The Probolinggo Regency Manpower Agency evaluated the flow process and assessed the density of toilet usage among the workforce. Based on their assessment, it was determined that there is no queue exceeding five minutes during periods of toilet use. As a result, the Probolinggo Regency Manpower Agency has approved a recommendation letter advocating for an exception (Document in Indonesian language: Final_Laporan Kebutuhan Jumlah Toilet and Rekomendasi Penyediaan Fasilitas Toilet.). This decision takes into account that the addition of more toilets would lead to a reduction in the green open space, which is mandated by law. According to Law No. 26 of 2007 concerning Spatial Planning and Regulation of the Minister of Agrarian Affairs and Spatial Planning Number 14 of 2022, companies are required to maintain a minimum of 10% of their land area as green open space.

Furthermore, based on the results of the mosquito larvae vector survey report dated June 4, 2025, it was found that 4 out of 7 survey locations did not meet the environmental health requirements in accordance with Minister of Health Regulation No. 2 of 2023 pertaining to allowable larvae numbers.

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.*


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Comment	The site has identified and mapped 11 vendors that supply products, categorized into two types: LEAF and DIM (the packaging products). To gather information, the site sent out a questionnaire to all suppliers and outsourced services, asking about their location, water-related risks, water quality issues (such as water quality monitoring frequency), and water quantity (for example, water use per tonne of product manufactured). According to their location, all suppliers are outside the catchment area.	
1.4.2	<i>The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.</i>	 Yes
Comment	The site mapped and monitored indirect water consumption from 7 outsourced services used by the site. These services include cleaning, security, canteen operations, polyclinic, WWTP operations, and maintenance and project buildings. The site inquired about their locations, water-related risks, water quality issues such as monitoring frequency, and water quantity. All outsourced services use the same water source from the deep well on the site during their operations.	
1.5	<i>Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH</i>	
1.5.1	<i>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.</i>	 Yes
Comment	The site has identified and documented a water governance structure in Kraksaan, Probolinggo Regency, functioning within Indonesia's multi-tiered regulatory framework to address water security, sanitation access, and flood management. The National Medium Term Development Plan (RPJMN) 2020-2024, under Presidential Regulation 18/2020, aims for 100% safe drinking water access and 90% household sanitation coverage by 2024, with regional implementation through Surabaya City's RPJMD 2021-2026. This plan emphasizes green open spaces as river borders and integrated waste management systems. Local efforts include the East Java Provincial Public Works Department's Kertosono River normalization project (February 2023), which involved 1 km of upstream work and increased capacity by 1,300 m ³ , community-led environmental cleanups in Kraksaan Wetan Village involving seven neighborhood associations, and the construction of a 123-meter retaining wall in Kebunagung Village (scheduled for 2025) to prevent flooding. The Housing, Settlement, and Land Agency (DPKPP) manages WASH programs through socialization events focused on improving uninhabitable houses, sanitation, and providing access to clean water for low-income communities. No new water governance policies have been introduced this year; however, the site remains actively engaged with government agencies, companies, universities, and NGOs through meetings and forums on water and sustainability issues. Additionally, the External Affairs department monitors and communicates upcoming policy changes to ensure ongoing alignment with evolving regulatory frameworks for catchment-level water management.	
1.5.2	<i>Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.</i>	 Yes

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Comment The site upholds environmental compliance through Red-on-Line, a digital EHS solution designed for efficient regulatory monitoring and legal register management. This system enhances compliance tracking, facilitates proactive monitoring of potential water regulation non-compliances, and provides weekly email updates. The plant has designated personnel responsible for environmental oversight, ensuring that compliance actions are properly executed.

HM Sampoerna's Kraksaan facility operates in accordance with multiple layers of Indonesian regulations, including Government Regulation No. 22 of 2021 concerning environmental protection and management, Minister of Environment Regulation No. 5 of 2014 on wastewater quality standards, and East Java Governor Regulation No. 72 of 2013 on industrial wastewater standards. The facility must adhere to specific obligations such as monthly wastewater quality monitoring, quarterly reporting to relevant authorities, maintaining certified personnel for wastewater treatment operations, and complying with discharge limits established for cigarette manufacturing facilities categorized under Category IV standards. The facility also reports through Indonesia's SIMPEL (Environmental Electronic Reporting Information System) to the Ministry of Environment, ensuring transparency with regulatory authorities. Their legal register tracks 57 water-related regulatory articles, boasting a compliance rate of 78.95%, encompassing areas from wastewater discharge permits and quality standards to groundwater management and pollution control procedures. The facility maintains all necessary certifications for wastewater treatment personnel, systematically reports any non-conformities, and submits mandatory quarterly reports to local environmental authorities (DLH Kraksaan) along with semi-annual reports to the national Ministry of Environment, thereby ensuring comprehensive adherence to all water-related legal requirements.

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



Comment The site has collaborated with Brawijaya University and Averroes to analyze the catchment water balance for the year 2025. The research document is titled "Hydrological and Hydrogeological Baseline Data in the Working Area of PT HM Sampoerna Tbk., SKT Kraksaan Plant, Probolinggo." The assessment employed the F.J. Mock Method and Thornthwaite-Mather calculations across two watersheds: Kandangjati and Kertosono-Pengandangan.

The surface water balance indicates that the Kandangjati watershed has a river inflow of 23.03 million m³/year, with outflows totaling 22.01 million m³/year (15.00 million m³/year for evapotranspiration and 7.01 million m³/year for agriculture/irrigation), resulting in a surplus of 1.02 million m³/year. In contrast, the Kertosono-Pengandangan watershed demonstrates stronger surface water performance, receiving an inflow of 224.23 million m³/year, while its outflows amount to 179.19 million m³/year (71.70 million m³/year for agriculture/irrigation and 107.50 million m³/year for evapotranspiration), yielding a surplus of 45.03 million m³/year. Groundwater analysis reveals that Kandangjati has a climatological deficit of 3.27 million m³/year due to limited infiltration (2.73 million m³/year) compared to demand (585,664 m³/year). Nevertheless, it maintains an overall surplus of 941.5 million m³/year when factoring in aquifer storage of 944.77 million m³. Conversely, Kertosono-Pengandangan exhibits a positive groundwater balance, with infiltration of 14.15 million m³/year surpassing demand of 13.29 million m³/year, leading to a total surplus of 6.77 billion m³/year, including storage. Projection analysis through 2035 reveals differing sustainability trajectories, necessitating distinct management approaches for surface and groundwater. Kertosono-Pengandangan is expected to maintain stable conditions, with a consistent surface water surplus of over 45 million m³/year and a groundwater supply of 14.15 million m³/year, even as demand gradually increases from 13.25 to 13.6 million m³/year, preserving surplus margins. However, Kandangjati presents concerning trends, with stable surface water balance but an accelerating growth in groundwater demand, projected to rise from 540,000 to potentially over 600,000 m³/year by 2035, while storage remains static at 950 million m³/year. The site water abstraction has minimal impact, totaling 69,332 m³/year for household use across both watersheds, alongside additional industrial extraction of 299,592 m³/year in Kertosono-Pengandangan. Both watersheds currently confirm no immediate scarcity, as positive water balance equations exist for surface and groundwater systems.

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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.



Yes

Comment

The site identified and established a comprehensive water quality monitoring program covering onsite and offsite water sources during 2024-2025, supplemented by extensive baseline groundwater studies across the Kertosono-Pengandangan and Kandangjati watersheds. The site facility monitors onsite groundwater from deep wells, drinking water from purification systems, wastewater effluent, and offsite surface water at upstream and downstream locations. The site expanded monitoring to include community groundwater assessment, conducting clean water sampling tests at 3 residents' houses in the surrounding neighborhood who use groundwater as their water supply. Catchment-level groundwater quality was assessed through 17 water samples taken across two catchment areas—14 from the Kertosono-Pengandangan watershed (13 dug wells and 1 spring) and 3 from the Kandangjati watershed (3 dug wells)—covering parameters including temperature, turbidity, TDS, color, pH, major ions (Na⁺, K⁺, Ca²⁺, Mg²⁺, SO₄²⁻, HCO₃⁻, Cl⁻), nitrogen compounds, hexavalent chromium, iron, manganese, phenol, COD, BOD, oil and grease, ammonia, E.coli, and total coliform bacteria.

The 2024-2025 monitoring data, combined with baseline studies, show onsite groundwater meeting Health Ministry Regulation No. 2/2023 standards with temperature 29.8°C, TDS 120 mg/L, turbidity 0.12 NTU, and color 6.82 Pt/Co, though total coliform contamination reached 40 CFU/100mL in Semester 1 2024. Catchment-level groundwater monitoring revealed significant spatial variability with temperatures ranging 27.9-37.7°C (average 31°C), pH 6.3-7.7 (average 6.8), TDS 140-550 mg/L (average 292.86 mg/L), and electrical conductivity 281.1-868.4 µS/cm (average 537.2 µS/cm). Six sampling points (MA1, SG1, SG7, SG9, SG11, SG12) exceeded 300 mg/L TDS standards, particularly in downstream areas affected by increased water-rock interaction and human activities. Hydrogeochemical analysis using Piper trilinear diagrams identified alkaline-earth water dominance across all sampling points, with groundwater facies varying from calcium-magnesium-bicarbonate in shallow upstream areas to calcium-magnesium-chloride-sulfate-bicarbonate in downstream locations. Community groundwater sampling revealed high E.coli levels in residents' water sources, prompting clean living socialization programs. Wastewater quality improved with COD 14-73 mg/L, BOD 5-28 mg/L, phenol 0.005-0.012 mg/L, and oil/grease 0 mg/L, while water purifier systems maintained TDS 110-126 mg/L with zero coliform detection.

Additionally, the site has identified both annual and seasonal, including high and low variance, with the subject of analysis being receiving water bodies, upstream, and downstream. The collected data from Jan-24 to Jul-25 established that the annual high and low variances were clearly established based on East Java Governor Regulation No. 72/2013 category IV (cigarette industry) for all parameters, demonstrating the full operational range: COD showed the highest variance with a maximum of 118.0 mg/L (Jul-24) and a minimum of 14.0 mg/L (Jun-25). Similarly, Ammonium exhibited a significant range, peaking at 9.7 mg/L (Dec-24, Feb-25) and dropping to a low of 0.1 mg/L (Jun-25). A basic seasonal variance analysis was conducted by grouping the data into a Wet Season (November–April) and a Dry Season (May–October). The laboratory analysis results show that several parameters, specifically TSS, BOD, COD, and Ammonium, are slightly higher on average during the Wet Season months compared to the Dry Season.

This is further supported by the Water Body data comparison (Oct-24 vs. Sem-1 2025), which independently showed substantial variation in the receiving water itself, most notably for TSS (ranging from 28 mg/L to 79 mg/L) and Ammonia (varying from 0.029 mg/L to 3.44 mg/L).

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

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Comment The site has identified six Important Water-Related Areas (IWRAs) in the Kertosono-Pengandangan catchment through their 2025 AWS baseline study. Each area was mapped with specific coordinates and assessed using a 0-5 degradation scale.

Argopuro Mountain, located 28 kilometers from the plant at 3,088 meters elevation, serves as the groundwater recharge area for the Kandangjati Watershed. The area received a degradation score of 2. Forest fires occurred in October 2023 and September 2024, detected via SIPONGI KLHK HOTSPOT application. The fires consumed shrubs, grasslands, and pine forests below Rawa Embik, approximately 10 kilometers from Plaosan Village, Krucil District. Three rivers within the catchment scored 2 on the degradation scale. Kandang Jati River, 0.3 kilometers from the plant, serves as the wastewater discharge point. Kertosono River, the largest river at 1 kilometer distance, flows from Argopuro Mountain to the sea. Besuk River lies 2.5 kilometers from the plant in the Pengandangan Watershed. Water quality testing at nine sampling points showed eight locations classified as "lightly polluted" based on pollution index calculations. Total coliform counts ranged from 2,400 to 4,300, exceeding the Class III standard of 10,000 per Government Regulation PP 22/2021. Taman Sari Spring, 3.5 kilometers from the plant, scored 3 (acceptable condition). The spring maintains a 10 liters per second flow rate year-round and irrigates 20x60 square meters of rice fields. Water testing showed pH 7, temperature 29.1°C, and TDS 350 mg/L, exceeding the 300 mg/L standard in Permenkes No. 2 of 2023.

The mangrove area 5 kilometers from the plant scored 2. Satellite imagery comparison between 2000 and 2022 documented mangrove loss in the Kandangjati river area. The assessment identified risks of seawater intrusion, coastal abrasion, and biodiversity loss. InaRisk drought (government portal for disaster mapping) mapping showed risk indices of 0.2 in upstream forested areas and 0.5 in downstream areas, including the plant location. The assessment used physical and chemical parameter testing, GIS mapping, and stakeholder engagement to evaluate each IWRA's status and threats.

During the stakeholder forum, which was subsequently verified during the audit of stakeholder consultations, the site engaged with various environmental agencies, including the UPT Welang-Pekalen Water Agency and the Public Works and Public Housing Office of Probolinggo Regency. This engagement aimed to confirm the locations of the IWRAs and to identify the authoritative agencies responsible for their maintenance, including the collaborative efforts involved.

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

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Comment The site has identified six water-related infrastructure assets with documented conditions and capacities. The infrastructure comprises two dams: DAM Kandangjati (1.71 km from plant, 1 million liter capacity, good condition requiring minimal maintenance) and DAM Jambangan Besuk (7.14 km from plant, capacity undocumented, good condition requiring minimal maintenance); one water service provider: PDAM Probolinggo Regency (19.7 km from plant, 105.22 l/s capacity, excellent condition requiring only routine monitoring); two communal sanitation facilities: Kebonagung Village facility (1 km from plant, 8 cubicles serving 15 households, severely degraded requiring considerable restoration) and Kraksaan Wetan Village facility (2.8 km from plant, 10 total cubicles serving 14 households across two areas, acceptable condition requiring improvement); and artesian wells in Kebonagung Village (acceptable condition serving 55 houses, requiring improvement).

Additionally, the site has undertaken independent research in collaboration with the local non-governmental organization AVERROES to assess exposure to extreme events. The findings of this research are comprehensively detailed in the Social Mapping Report for 2025 and the WASH Report for 2024, both of which are available in Indonesian. These reports highlight extreme events as a part of the analysis.

The research methodology included household surveys and engagement with local government agencies, water authorities, environmental organizations, and public infrastructure entities. Four primary types of extreme events were identified: flooding, tidal waves, coastal erosion, drought, and water pollution. Data collection methodologies included observational techniques, semi-structured interviews, Focus Group Discussions, and structured surveys, all framed within the Sustainable Livelihood Approach. Primary data was gathered through field observations, supplemented by secondary data from health center records and governmental planning documents.

Additionally, the reports indicate that population growth and climate change are significant factors likely contributing to increased pressure on water resources and heightened vulnerability to these extreme events.

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



Yes

Comment Based on the documented evidence, the catchment population demonstrates measurable access to Water, Sanitation, and Hygiene (WASH) services with specific quantified outcomes. In East Java Province, 96.93% of households have access to safe drinking water as of 2024, with Probolinggo Regency achieving 96.90% coverage according to BPS Statistics of East Java Province (2025). The WASH Assessment Kraksaan (2025) confirms that 99.7% of respondent households in Kraksaan Wetan and Kebonagung areas reported easy access to clean water, with wells serving as the primary source for 94.8% of respondents for sanitation purposes, 93.4% for cooking, and 76.6% for drinking. Sanitation access shows lower performance levels compared to water access within the catchment area. Provincial data indicates that 85.56% of East Java households have proper sanitation access, while Probolinggo Regency achieves only 66.39% coverage in 2024 according to BPS Statistics. The WASH Assessment documents that 92.8% of surveyed households possess toilet facilities, with 93.7% utilizing septic tank systems, though 5.6% of latrines discharge directly into rivers. For hygiene access, WHO/UNICEF JMP (2023) data shows 79% national coverage for basic hygiene services, with urban areas achieving 81% coverage, indicating the catchment population's hygiene access aligns with national Indonesian standards.

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

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Comment The site has identified ten shared water challenges through stakeholder consultation using multiple data sources, including baseline studies (InaRisk), social mapping, questionnaires, stakeholder interviews, and media news. The challenges are prioritized using a risk-level system with numerical rankings: Flood (Medium risk, Priority 2), Flash Flood (Medium risk, Priority 4), Water Quality on Catchment (Medium risk, Priority 3), Forest and Land Fires (Low risk, Priority 5), Drought Risk (Low risk, Priority 6), Excess Water Use (Low risk, Priority 7), Saltwater Intrusion (Low risk, Priority 8), Loss of Biodiversity (Low risk, Priority 9), and Coastal Abrasion (Low risk, Priority 10), with Unimproved/Improper Sanitation and Hygiene on Catchment listed as Medium risk, Priority 1. The prioritization methodology combines risk assessment levels (Medium/Low) with numerical sequencing, though the document does not explicitly explain the specific criteria or justification framework used to determine the priority rankings beyond the risk level classifications.

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



Yes

Comment The site has identified multiple initiatives to address each shared water challenge. For Flood (Priority 2), initiatives include contacting relevant authorities for catchment water stress awareness, community education, reforestation in upstream areas, river normalization, watershed socialization, and watershed management with sluice gates. For Flash Flood (Priority 4), identified initiatives are watershed management through reforestation, public awareness for watershed protection, and collaboration with authorities for river normalization. Water Quality on Catchment (Priority 3) initiatives include the Clean Living Program by Health Office promoters, local government collaboration for communal latrine procurement, water source revitalization activities with PUPR and DLH, and PT HM Sampoerna's wastewater treatment commitment. Forest and Land Fires (Priority 5) initiatives comprise awareness campaigns, forestry campaigns, and monitoring, and construction of water ditches in fire-prone forest areas. Additional initiatives are identified for Drought Risk (water use socialization and HIPPAM water collectors), Excess Water Use (regulatory compliance and water-saving measures), Sanitation and Hygiene (Clean Living Behavior Program and communal sanitation facilities), and coastal challenges, including Saltwater Intrusion, Loss of Biodiversity, and Coastal Abrasion (public awareness and mangrove rehabilitation programs with local government authorities).

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 site identifies 18 water-related risks with their corresponding likelihood assessments, severity classifications, and priority rankings. The document presents risks categorized by frequency ratings (ranging from "Almost never" to "Very likely - almost once every year") and magnitude levels (Low, Medium, Serious, Catastrophic), with specific timeframes identified for 11 out of 18 risks (including 3-5 year cycles for flood risks, annual occurrences for water quality degradation, and 10-year intervals for treatment system failures). Priority levels are assigned across five categories (Very low, Low, Moderate, High, Very high), with potential costs classified as negligible, low, moderate, or high. Business impacts are documented for both site-specific and catchment-area effects, including operational disruptions, environmental pollution risks, regulatory compliance issues, and potential production shutdowns, thereby fulfilling the indicator requirements for risk identification, prioritization, cost assessment, and business impact analysis within defined timeframes.

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



Yes

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Comment The site has identified a water-related opportunities assessment that identifies 6 prioritized opportunities presented in tabular format. The site listing opportunities with priority classifications (3 High priority, 3 Moderate priority), potential savings assessments (consistently rated as "low"), and specific descriptions of site participation mechanisms, including collaborative tree planting, river normalization, water stewardship socialization, wastewater treatment monitoring, health office partnerships, and mangrove rehabilitation programs. The opportunities encompass both site-specific actions and collective initiatives involving authorities, stakeholders, communities, and government entities (3 out of 6 opportunities involve collective action). The assessment includes forward-looking elements with timeframes ranging from annual execution to 5-year implementation periods, addresses shared water challenges through catchment-wide watershed management and water quality improvement initiatives, and demonstrates risk reduction through collective action opportunities such as stakeholder engagement for sustainable water use, community education on flood mitigation, and multi-party collaboration on river conditions normalization.

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 conducted an investigation into water governance best practices from over 15 organizations, including government agencies (e.g., Ministry of Environment, Water and Agriculture), regulatory bodies (PERMENLHK), research institutions (Brawijaya University), health agencies (Kraksaan Health Center), and water utilities (Manila Water). The analysis examined governance frameworks from national ministries, provincial governments (like West Java's Regional Action Plan for Drinking Water and Environmental Health), local health agencies, and multi-stakeholder initiatives involving various partners. The site adopted 15 specific governance best practices, of which 6 are directly applicable to site-level implementation. These include stakeholder engagement forums to enhance collaboration, public disclosure of water use and quality data to ensure transparency, partnerships with government agencies for collaborative conservation efforts, on-site river cleanup actions, tree planting initiatives to support the local environment, and activities to commemorate Water Day and raise awareness about water sustainability.

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 conducted an investigation into water balance best practices from over 10 organizations, including international development agencies (USAID IUWASH), industrial companies (PT. BAT, PT Danone, PT TMMIN, Petrokimia Gresik), water utility providers, government agencies implementing technical standards, academic institutions (Politeknik Negeri Malang), and community-based organizations. The analysis examined water efficiency frameworks from agricultural sector implementations achieving up to 90% efficiency improvements, industrial water optimization technologies, catchment-level groundwater recharge systems, and infrastructure development programs for water availability enhancement. The site identified 21 specific water balance best practices covering both water efficiency and reduced total water use approaches, of which 6 are directly adopted for site-level implementation. These include the Improvement Piping System, biopore program, Rehabilitation of Deepwell Pump System, installation of water-saving aerator nozzles, upgraded flow meters to prevent water leaks, and the addition of a new line system in WWTP.

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



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Comment The site conducted an investigation into water quality best practices from over 8 organizations, including regulatory bodies (PERMENLHK implementing regulation No. 14/2025), government agencies (Environmental Services Agency), international development organizations (USAID IUWASH), research institutions (Brawijaya University), water utility providers (Manila Water), industrial companies (PT Gudang Garam), and regional government authorities implementing drinking water action plans. The analysis examined water quality frameworks from national wastewater management regulations, environmental compliance standards, technical guidelines for water treatment systems, and industrial sector implementations for contamination prevention and treatment optimization. Ten best practices were identified, with six adopted for local implementation: achieving BOD levels of 19 mg/L and COD levels of 53 mg/L to meet regulatory standards, installing biofil and sump systems for better filtration, optimizing wastewater treatment with Return Activated Sludge (RAS) pumps, enforcing a zero untreated wastewater release policy, connecting additional sewage lines to treatment facilities, and enhancing treatment consistency with submersible pump installations for effluent tank relooping.

1.8.4 *Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.*


Yes

Comment The site conducted an investigation into Important Water-Related Areas (IWRA) maintenance best practices from over 8 organizations, including research institutions (Brawijaya University), government agencies (Environmental Services Agency, Kraksaan Health Center), community welfare organizations (Ibu PKK), regional authorities implementing river normalization programs, environmental NGOs conducting restoration projects, and industrial stakeholders participating in tree planting and cleanup campaigns. The analysis examined IWRA conservation frameworks from government Five Pillars of Community-Based Total Sanitation (STBM) programs, university research partnerships for biodiversity protection, multi-stakeholder technical tables for environmental authority collaboration, and community-based awareness campaigns for catchment safeguarding activities. The site identified 14 IWRA maintenance best practices in restoration, monitoring, community engagement, and biodiversity conservation, with 6 adopted for implementation. These include a comprehensive Baseline Study for IWRA mapping and water quality in the Kertosono and Kandangjati Watersheds, social mapping stakeholders for inclusive engagement, the AWS Stakeholder Forum for collaborative stewardship, a Clean Living Behavior Education program in Kraksaan District, renovations to an Integrated Waste Management Facility to prevent waste discharge, and construction of 2 leachate water tanks along with renovations of 2 toilet facilities to reduce contamination risks to Important Water-Related Areas.

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 assessed WASH best practices from over eight organizations, including health agencies, regulatory bodies, community organizations, and international health organizations. Based on the WASH assessment conducted by the site in collaboration with local NGOs, the report shows that personal hygiene and sanitation behaviors vary widely. 95.2% of residents always wash their hands before eating, but only 47.9% always use soap, while the rest do so only sometimes or never. Furthermore, only 54.1% of households provide soap for handwashing. This indicates a limited understanding of the importance of hand hygiene as part of WASH practices. As an initial step to handle this issue, the site identified four best practices and adapted them to the site, which are:
Clean Living Behavior Education in Kraksaan District,
Renovation of the Integrated Waste Management Facility in Pasar Sore,
Construction of leachate water tanks and toilet renovations,
Socialization site water stewardship programs to 25 households located right next to the factory fence.

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2 STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan		
2.1	<i>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.</i>	
2.1.1	<i>A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:</i> <i>- That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes</i> <i>- That the site implementation will be aligned to and in support of existing catchment sustainability plans</i> <i>- That the site's stakeholders will be engaged in an open and transparent way</i> <i>- That the site will allocate resources to implement the Standard.</i>	 Yes
Comment	The site has displayed the AWS commitment statement on notice boards in the office lobby, security area, Unit 1, Unit 2, Unit 3, Unit 4, and main hall. These locations are accessible to visitors and external parties entering the facility. The commitment documents are mounted in frames and positioned on bulletin boards throughout the operational areas where public access occurs. The site conducted stakeholder engagement through the AWS Stakeholder Forum on February 20, 2025, with participants including Probolinggo Regency Public Health Office, Head of Kraksaan District, Brawijaya University, Probolinggo Regency Environmental Service, Public Works and Public Housing Office, UPT Welang Pekalen, and East Java Environmental Service. Internal communication activities included employee disclosure sessions on January 12, 2025, radio broadcasting on January 22, 2025, and monthly educational content distribution via WhatsApp groups and email. The site meets the AWS Standard requirement for public disclosure through physical display of the commitment statement in publicly accessible areas of the facility.	
2.2	<i>Develop and document a process to achieve and maintain legal and regulatory compliance.</i>	
2.2.1	<i>The system to maintain compliance obligations for water and wastewater management shall be identified, including:</i> <i>- Identification of responsible persons/positions within facility organizational structure</i> <i>- Process for submissions to regulatory agencies.</i>	 Yes
Comment	The site maintains water and wastewater regulatory compliance through the Online System and updates information from External Affairs. The responsibilities have been documented in the "AWS Organization," and the person responsible for legal correspondence has also been documented. Each year, the site reviews all compliance regulations in the management review process. The site also used the Red-on-Line system, which is a global, comprehensive EHS solution for regulatory compliance to effectively maintain EHS compliance. The system tracks 88 total water-related regulations, with a compliance status breakdown of 43.18% compliant, 2.27% for information, and 54.55% not applicable, as of June 2025. Additionally, each month, the site reports all water activity to the government to ensure that all parameters meet the requirements.	
2.3	<i>Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.</i>	

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2.3.1	<i>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.</i>	 Yes
Comment	The site has developed an AWS strategy that defines the company's vision, mission, and goals for water stewardship through a formal Water Stewardship Commitment with five specific objectives: (1) assess water-related risks and shared challenges at plant and catchment levels to identify mitigation opportunities, (2) ensure compliance with water-related laws and regulations, (3) ensure quality of water used and discharged meets local regulations and AWS standards, (4) create, maintain, and evaluate the Kraksaan Plant Water Management Strategy Plan including location and catchment-based actions targeting five AWS outcomes (good water governance, good water quality status, sustainable water balance, important water-related areas, and WASH), and (5) involve relevant stakeholders from various sectors for joint initiatives supporting catchment areas and shared water resources. The document was signed by Hendriawan Arief Wibowo, Manager Hand-Rolled Plant, in Probolinggo on 5 May 2025.	
2.3.2	<i>A water stewardship plan shall be identified, including for each target:</i> - 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.	 Obs.
Comment	The site has planned a comprehensive Water Stewardship Plan featuring 27 distinct initiatives, each structured with clear targets, measurement protocols, timelines, and responsible teams, all aligned with AWS outcomes. Key achievements of the plan include: • Water Efficiency: A targeted reduction in unaccounted water from 29.71% to 18.7% through the installation of 19 new flow meters and pipeline upgrades. • Water Quality: A commitment to 0% untreated wastewater release, verified by monitoring for BOD (< 50 mg/L) and COD (< 120 mg/L), supported by upgrades to the Wastewater Treatment Plant. • Stakeholder Engagement: Successfully engaged 69 participants from 27 stakeholder organizations, far exceeding the initial target of 20, through a dedicated stakeholder forum. While the majority of initiatives are complete or in progress, two key gaps have been identified: 1. Best Practices Linkage: The connection between 17 of the 22 best practices and the site's official documentation (section 1.8) remains unclear. 2. WASH: The WS action plan has not yet addressed the non-compliance findings from the mosquito larvae vector survey conducted on June 4, 2025.	
2.4	<i>Demonstrate the site's responsiveness and resilience to respond to water risks</i>	
2.4.1	<i>A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.</i>	 Yes

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- Comment
- The site has created water risk mitigation plans by working closely with various public agencies to tackle issues like water supply interruptions, declining water quality, floods, seasonal changes, and wastewater treatment failures. The AWS Stakeholder Forum 2025 on February 20 involved 69 participants from 27 organizations, including the East Java Environmental Service and several local government offices.
- Key mitigation measures include:
- River normalization activities in the Kertosono watershed led by UPT Welang Pekalen to address flooding and siltation.
 - Floodgate construction in Kalibuntu Village, completed in December 2024, to combat tidal flooding.
 - Drainage improvements by the PUPR, including weir revitalization since 2022 for flooded areas.
 - Sanitation facility upgrades coordinated with the Health Office, focusing on ODF targets and proper toilet installations.
 - Waste management improvements with the Environmental Service, including waste boom installations and communal WWTP construction.
 - Water quality testing programs by DINKES and Puskesmas, following health regulations, with annual testing of community water sources.
 - Development of biopores/injection wells based on PUPR's flood analysis data.

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3	STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts	
3.1	<i>Implement plan to participate positively in catchment governance.</i>	
3.1.1	<i>Evidence that the site has supported good catchment governance shall be identified.</i>	Q Obs.
Comment	The site has demonstrated active participation in catchment governance through several measurable activities. The site conducted a comprehensive Baseline Study (Q3 2024-Q2 2025) that included hydrological assessment, IWRA status, water quality evaluation, and water risk identification within the catchment area. The site organized and hosted the AWS Stakeholder Forum 2025 (December 2024-February 2025), which engaged 69 participants representing 27 stakeholders, including East Java Environmental Service, Brawijaya University, UPT PSDA River region Welang Pekalen (watershed management authority), and multiple government agencies. The site completed Social Mapping activities (Q1-Q2 2025) to analyze stakeholder conditions and influence levels, specifically targeting Ring 1 community members. Additionally, the plant initiated Fresh Water Quality Monitoring in the catchment area (Q4 2024-Q4 2027) and shared monitoring data through collaborative partnerships. The facility also conducted the Movement of Garbage and Sediment cleaning program (August 2025) in cooperation with local community members, removing 840 kilograms of waste from irrigation channels and Kandangjati River banks, exceeding the target of 500 kilograms.	
3.1.2	<i>Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.</i>	✓ Yes
Comment	No Indigenous Peoples have been identified in the site's operational area, which is located in the center of the city. Residents access water through a combination of municipal supply, private wells, and community-based water providers.	
3.2	<i>Implement system to comply with water-related legal and regulatory requirements and respect water rights.</i>	
3.2.1	<i>A process to verify full legal and regulatory compliance shall be implemented.</i>	✓ Yes
Comment	All national and local legal requirements and regulations have been met by the operational processing plant on the site, including the wastewater discharge requirements. The permission documents are appropriately documented and up to date. The site maintains water and wastewater regulatory compliance through the Red-On-Line digital system. This global EHS solution provides weekly monitoring emails and dashboard notifications for new or updated regulations. The site conducts monthly internal meetings to evaluate compliance status updates in the Red-On-Line platform and monitor regulatory changes through both the platform and government websites. Environmental permit tracking is maintained by the sustainability team, which monitors active periods and the status of all water-related permits.	
3.2.2	<i>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.</i>	✓ Yes
Comment	No specific indigenous groups are located within the site plant catchment areas. All national and local legal requirements and regulations have been met by the operational processing plant on the site including the wastewater discharge requirements.	
3.3	<i>Implement plan to achieve site water balance targets.</i>	
3.3.1	<i>Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.</i>	✓ Yes

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Comment	The site has set clear goals for managing its water use as part of a plan to conserve water. The site is focusing on finding and fixing leaks in pipes and tracking water that is being used but not accounted for, which is at least 5% of total water usage. In the first phase of its upgrades, which took place from December 2024 to March 2025, the site improved the piping system by adding new lines from the southern area and office sewage to the wastewater treatment plant. This work helped the site discover that it was losing nearly 30% of water due to unaccounted usage. For the second phase, completed between December 2024 and June 2025, the site changed the routes of some pipelines to make leaks easier to spot and added 19 new water meters. Thanks to these efforts, the site was able to reduce the unaccounted water to about 18.7%. Looking ahead, the site anticipates a third phase in which it aims to further diminish unaccounted water to 2.28%. The site's initiatives have additionally enhanced overall water efficiency, evidenced by a reduction in water consumption from 11.61 to 10.88 cubic meters per million cigarettes produced. The site also upgraded the deepwell pump system to ensure there are no failures in water distribution. All these goals, actions, and results demonstrate the site's commitment to enhancing water management and tackling the challenges of water scarcity and leaks, using better monitoring and improvements in infrastructure.	
3.3.2	<i>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.</i>	 Yes
Comment	The site has implemented specific annual targets and actions to improve water use efficiency in response to this water scarcity challenge. Actions include: compliance with groundwater withdrawal regulations and permits, implementing water-saving arrangements within the Plant site to reduce water use in the catchment area and increase water availability for other community users, identification of piping system and regular maintenance to prevent leakage, installation and recording of flow meters to identify water usage in the plant, and monthly monitoring of water extraction discharge from wells reported to Government. The site has established measurable targets through the three-phase piping improvement program, achieving progressive reduction in unaccounted water from 29.71% (Phase 1) to 18.7% (Phase 2) with a target of 2.28% (Phase 3), and demonstrated improved water efficiency by reducing usage from 11.61 to 10.88 m³ per million cigarettes.	
3.3.3	<i>Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.</i>	 Yes
Comment	The site does not reallocate water savings for external benefits or uses. After conducting interviews and visiting the site, no legal issues were found. There is no diversion of water for social, cultural, or environmental purposes.	
3.4	<i>Implement plan to achieve site water quality targets</i>	
3.4.1	<i>Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.</i>	 Yes

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Comment The site conducted a Baseline Study from July 2024 to May 2025 to assess and measure water quality on-site and in the catchment area. This study included water quality evaluations and risk assessments. Based on the findings, the site established water quality targets within its water stewardship plan and implemented specific actions to achieve these targets.

The targets set by the site include achieving 0% untreated wastewater release into the environment and reducing Biochemical Oxygen Demand (BOD) levels to below 50 mg/L and Chemical Oxygen Demand (COD) levels to below 120 mg/L. The actions taken to meet these targets include:

- Upgrading the sewage system with the installation of an additional biofilter and sump before the wastewater treatment plant (IPAL) to filter coarse particles and initiate biological processes (completed between December 2024 and March 2025).
- Optimizing WWTP Stage 1 by adding a Return Activated Sludge (RAS) pump to recycle active sludge from the clarifier back to the aerobic treatment (completed between October 2024 and April 2025).
- Improving WWTP quality performance in Step 2 by adding a submersible pump for the Effluent Tank relooping line to the Anaerobic Baffled Reactor (ABR) for emergency operations (completed between June 2025 and December 2025).
- Rejuvenating two pumps in the biofilter system due to equipment aging (completed in July 2025).

Current performance data show that BOD levels are at 19 mg/L and COD levels are at 53 mg/L in the effluent discharge to the receiving water body, both below the established targets. The site conducts upstream, downstream, and water body monitoring through external laboratories on a semiannual basis (from January 2024 to December 2027). Additionally, freshwater quality monitoring in the catchment area includes the collection of three samples from households near the plant (completed December 2024).

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 The site has assessed and measured water quality in the catchment area through a Baseline Study conducted to evaluate hydrological conditions and identify water-related risks. This study took place from July 2024 to May 2025. The objectives included identifying geohydrological conditions, defining and mapping the catchment area, analyzing Integrated Water Resources Assessment (IWRA), evaluating water quality, and assessing water risk.

From this baseline study, the site has identified a shared water challenge, titled "Water Quality in the Catchment," which is ranked as medium priority (#3). The river water quality has been classified as Class III, with elevated Biochemical Oxygen Demand (BOD) levels due to the accumulation of domestic and industrial waste.

Laboratory results indicate that the effluent quality data show BOD levels at 19 mg/L and Chemical Oxygen Demand (COD) levels at 53 mg/L. These figures are below the site's targets of 50 mg/L for BOD and 120 mg/L for COD. To manage and improve effluent quality, the site has implemented several practices, including:

- 1. Upgrading the sewage system by installing an additional biofilter and sump before the wastewater treatment plant (WWTP) to remove coarse particles.
2. Optimizing Stage 1 of the WWTP by adding a Return Activated Sludge (RAS) pump to recycle active sludge from the clarifier back to the aerobic treatment process.
3. Adding a submersible pump for the effluent tank relooping line to the Anaerobic Biofilter Reactor 1 (ABR 1).
4. Rejuvenating the pumps in the biofilter system.

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

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3.5.1	<i>Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.</i>	 Yes
Comment	The site has implemented practices for Important Water-Related Areas (IWRA) in the catchment area through two key initiatives. First, a Baseline Study was conducted to assess hydrological conditions and identify water-related risks in the catchment area. This study was completed between Q3 2024 and Q2 2025 (July 2024 - May 2025). The objectives of the study included identifying geohydrological conditions, defining and mapping the catchment, analyzing IWRA, evaluating water quality, and assessing water risk. The second initiative involved the "Movement of Garbage and Sediment in Kraksaan District." This project focused on normalizing irrigation channels and removing waste from these channels, as well as from the banks of the Kandangjati River in the Ring 1 catchment area (Kraksaan District). The goal was to remove 500 kilograms of waste, but the site successfully exceeded this target by removing 840 kilograms by August 2025. The activity included cleaning both the irrigation channels and the banks of the Kandangjati River of garbage and sediment, in collaboration with the local community. The site reports that no IWRAs were identified on-site, with practices focusing specifically on catchment-based Important Water-Related Areas.	
3.6	<i>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.</i>	
3.6.1	<i>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.</i>	 Obs.
Comment	The site has implemented several WASH initiatives for both workers and the community. In June 2025, a Self-WASH Assessment was conducted to evaluate on-site hygiene and sanitation conditions. Community actions included Clean Living Behavior Education in Kraksaan District, which exceeded its participant target, Water Stewardship socialization at Plant Kraksaan Hall, renovation of the Integrated Waste Management Facility in Pasar Sore Kraksaan District, and donation of waste bins to the Probolinggo Regency Environmental Service. A WASH Assessment involving 290 respondents from Kebonagung and Kraksaan Wetan villages identified hygiene and sanitation risks in the surrounding area. Wastewater from on-site facilities is treated through the site's WWTP system, with no untreated wastewater released, and BOD and COD levels within targets.	
3.6.2	<i>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.</i>	 Yes
Comment	During the visit, interviews with the site staff, and field observations, no evidence was found indicating that the site infringes upon the human right to water and sanitation. The information provided by the site and stakeholder demonstrated that their effluents do not impact anyone's ability to access water or sanitation.	
3.7	<i>Implement plan to maintain or improve indirect water use within the catchment:</i>	
3.7.1	<i>Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.</i>	 Yes

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Comment	The site has identified a total of 20 suppliers and service providers related to its operations. Among these, 14 are located outside the catchment area, while 6 vendors operate within the designated boundaries. Of the 20 suppliers, ten raw material suppliers (known as DIM suppliers) are situated outside the catchment area and were involved in the assessment of indirect water use. Engagement with these raw material providers took place through a systematic questionnaire distribution process conducted from June 9 to June 13, 2025, achieving a 100% completion rate for data collection on their indirect water use practices. To evaluate quantified indirect water usage and gain insights into how suppliers manage water and wastewater, the site requested specific information from its service providers and raw material suppliers. They collected 12 key pieces of information, including the location of operations, water-related risks, water quality issues (such as the frequency of water quality monitoring), and water quantity usage (for example, the amount of water consumed per tonne of product manufactured), along with other relevant details. The reported water consumption data varies significantly, ranging from 0.68 m³/ton to 1,268,275 m³/ton per month. Specific examples include one supplier consuming 47.93 m³/ton with 1,500,000 m³ of surface water, while another supplier uses 15,000 tons of material per month with a surface water usage of 10,000 m³. The annual quantities supplied range from 258,180 kg of adhesive materials to 37,837 pieces of flexible materials.	
3.7.2	<i>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.</i>	 Yes
Comment	The site has identified a total of 20 suppliers and service providers associated with its operations, of which 14 are located outside the catchment area and 6 vendors operate within the designated boundaries. The 6 vendors within the catchment area include Nayaka (polyclinic services), ISS (cleaning and monitoring), Maxima Energi Indokemika (wastewater treatment), Tirtamas Bangun Karya (wastewater treatment system), PT G4S Indonesia (security services), and PT Takenaka Indonesia (maintenance and project building). These vendors utilize the same water sources as the site, specifically deepwell and PDAM sources at the Kraksaan plant. The site diligently monitors and tracks the water consumption through stakeholder questionnaires distributed during June 9-13, 2025, achieving 100% completion status for indirect water use data collection. To assess quantified indirect water usage and gain insights into how suppliers manage water and wastewater, the site requested information from service providers and raw material suppliers. They collected 12 key pieces of information, including the location of operations, water-related risks, issues concerning water quality (such as the frequency of water quality monitoring), and water quantity (for example, the amount of water used per tonne of product manufactured), along with other relevant details. According to the water records, the vendors within the catchment area consumed varying amounts: Nayaka consumed 16.5 m³/month, ISS consumed 46.5 m³/month, Maxima Energi Indokemika consumed 33 m³/month, Tirtamas Bangun Karya consumed 9 m³/month, PT G4S Indonesia consumed 57 m³/month, and PT Takenaka Indonesia consumed 13.5 m³/month. Additionally, Primary Processing-Sukorejo, while located outside the catchment area, represents the highest consumption at 5,899.917 m³ annually from deepwell sources.	
3.8	<i>Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.</i>	
3.8.1	<i>Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.</i>	 Yes

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Comment The site has engaged with seven water-related infrastructure stakeholders through formal meetings conducted between February and June 2025. The stakeholders included: Head of Kraksaan District (Bapak Puja Kurniawan), Welang Pekalen River Organizer (Bapak Anton Darma Pusaka), Public Works and Housing Probolinggo Regency (Bapak Nurul Hidayat), Health Office Probolinggo Regency (Bapak Eko Didik), Environmental Service Probolinggo Regency (Ibu Ari Suciati), Manpower and Transmigration Department, and Probolinggo Regency Office of Housing, Settlements, and Land Affairs. The engagement evidence includes meeting photographs, signed consultation records, and official correspondence. Key messages relayed covered identified water risks, including flooding in Sidokerto, Kraksaan Wetan, Rangkang, and Sidomukti villages during high rainfall, tidal flooding in Kalibuntu Village, river siltation in Kertosono watershed caused by upstream sediment, drainage problems from land use changes, inadequate sanitation facilities, and solid waste issues. Stakeholders confirmed receipt through signed meeting minutes and official recommendation letters, with the Manpower Department providing a formal recommendation letter for toilet requirements and PERKIM-IPLT SEBORO documenting collaboration opportunities for leachate water processing from TPS (Temporary Waste Storage Site) Kraksaan District.

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 has implemented several best practices aimed at achieving effective water governance. It completed upgrades to its infrastructure, including the optimization of the Wastewater Treatment Plant from October 2024 to April 2025. This included the installation of Return Activated Sludge pumps, resulting in Biochemical Oxygen Demand (BOD) levels of 19 mg/L and Chemical Oxygen Demand (COD) levels of 53 mg/L—both well below the regulatory limits of 50 mg/L and 120 mg/L, respectively.

In addition, the site undertook comprehensive improvements to its piping system in two phases. This involved converting underground pipelines to an above-ground configuration and installing 19 new water meters, which reduced unaccounted water from 29.71% to 18.7%. The plant established systematic water quality monitoring protocols that have led to a zero percent release of untreated wastewater into the environment. It also rehabilitated the deep well pump system to ensure reliability in freshwater distribution.

For catchment-level governance, the site conducted multi-stakeholder engagement through the AWS Stakeholder Forum 2025, involving 27 stakeholders, including government agencies, universities, and community organizations. Furthermore, the facility implemented community education programs, such as the Clean Living Behavior Education, which reached 55 participants—exceeding the target of 30. A radio campaign, broadcast three times a week, raised awareness about water stewardship. Additionally, renovations were completed at the Integrated Waste Management Facility in Pasar Sore Kraksaan District.

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

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Comment	The site has established a clear link between the practices identified in indicator 1.8.2 and the actions implemented as part of their water stewardship plan under indicator 2.3.2. Several water balance best practices from document 1.8.2 have been implemented: - Best Practice #23: "Improvement of the water piping system, including the upgrade of flow meters to reduce water leaks." This practice focuses on enhancing infrastructure to detect and prevent water losses through systematic piping improvements and improved monitoring. The site's planned three-phase piping improvement program aims to replace underground water supply pipes with above-ground configurations for early leak detection and to install 19 new water meters to monitor water usage. - Best Practice #29: "Harvesting rainwater and implementing 3R activities (Reduce, Reuse, Recycle)". This practice promotes water conservation by collecting rainwater and applying the 3R principles to minimize water consumption and maximize water reuse. The site's implementation of the "Reduce" component improved water efficiency and decreased usage from 11.61 to 10.88 m³ per million cigarettes. - Best Practice #37: "Monitoring freshwater quality in compliance with regulations." This practice involves systematic monitoring to ensure compliance with regulatory standards for freshwater quality. The site's stewardship plan includes monthly monitoring of water extraction discharge from wells, which is reported to the government, along with adherence to groundwater withdrawal regulations and permits.	
3.9.3	<i>Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.</i>	 Yes
Comment	The site has established a clear link between the practices identified in indicator 1.8.2 and the actions implemented as part of their water stewardship plan under indicator 2.3.2. Several water balance best practices from document 1.8.2 have been implemented: • Best Practice #23: "Improvement water piping system including upgrade flow meter to prevent water leaks." This practice focuses on infrastructure upgrades to detect and prevent water losses through systematic piping improvements and enhanced monitoring capabilities. The site implemented their three-phase piping improvement program, replacing underground water supply pipes with above ground configuration for early leak detection and installing 19 new water meters to monitor water usage across the facility. • Best Practice #29: "Harvesting rainwater and implementing 3R activities (Reduce, Reuse, Recycle)." This practice involves water conservation through collection of rainwater and application of the 3R principles to minimize water consumption and maximize water reuse. The site implemented the "Reduce" component by achieving improved water efficiency that reduced usage from 11.61 to 10.88 m³ per million cigarettes through water-saving arrangements within the plant. • Best Practice #37: "Monitor fresh water quality in accordance with applicable regulations." This practice requires systematic monitoring and compliance with regulatory standards for freshwater quality and usage. The site implemented monthly monitoring of water extraction discharge from wells reported to ESDM, compliance with groundwater withdrawal regulations and permits, and adherence to all applicable regulations regarding groundwater use.	
3.9.4	<i>Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.</i>	 Yes

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Comment The site has established a clear link between the practices identified in indicator 1.8.4 and the actions implemented as part of their water stewardship plan under indicator 2.3.2. Several IWRA maintenance best practices from document 1.8.4 have been implemented:

- Best Practice #65: "Tree planting or reforestation in mountainous areas." This practice focuses on environmental restoration and water retention through vegetation establishment. The site implemented collaboration planting of 25 tabebuya trees on the catchment with the Kandangjati community around the plant area (completed June 2024), exceeding their target of 20 trees planted in 2024.
- Best Practice #72: "Making biopores." This practice involves creating water infiltration systems to enhance groundwater recharge and reduce surface runoff. While not directly implemented at the site, this practice aligns with the site's water retention objectives through their tree planting initiative, which increases water retention and absorption.
- Best Practice #86: "River Cleanup and Waste Removal Program." This practice requires systematic cleanup of water bodies and surrounding areas to maintain water quality and flow capacity. The site implemented the "Movement of Garbage and Sediment on Kraksaan District" initiative, removing 840 kilograms of waste from irrigation channels and the surrounding area of Kandangjati River (completed August 2025), exceeding their target of 500 kilograms.

The site also conducted a Baseline Study (July 2024-May 2025) to identify geohydrological conditions, define and map the catchment, analyze IWRA, analyze water quality, and analyze water risk, producing one document of Final Report containing IWRA analysis, water quality status, and significant water-related risks.

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

Comment The site has established a clear link between the practices identified in indicator 1.8.5 and the actions implemented as part of their water stewardship plan under indicator 2.3.2. Several WASH best practices from document 1.8.5 have been implemented:

- Best Practice #84: "Hand Wash with Soap (Cuci Tangan Pakai Sabun - CTPS) Campaign." This practice focuses on promoting proper hand hygiene through community education campaigns. The site implemented Clean Living Behavior Education in Kraksaan District 2025 in collaboration with Kraksaan Health Center, targeting communities in the water catchment area (Ring 1) and achieving 55 participants, exceeding the target of 30.
- Best Practice #85: "Literacy of Clean and Healthy Living Behavior (PHBS)." This practice involves educating communities about clean and healthy living behaviors to improve sanitation and hygiene. The site implemented educational programs focused on sanitation and hygiene principles, particularly those aligned with Clean Living Behaviors, targeting minority and underserved groups through the Empowerment and Family Welfare Group (Ibu PKK).
- Best Practice #105: "Clean Living Socialization and Handover of Healthy Latrines." This practice requires provision and education about proper sanitation facilities. The site implemented renovation of Integrated Waste Management Facility in Pasar Sore Kraksaan District, including construction of 2 leachate water tanks and renovation of 2 toilet facilities (completed May-July 2025).

The site also conducted a WASH Assessment using sampling method with 290 respondents in 2 villages (Kebonagung and Kraksaan Wetan) to identify hygiene and sanitation conditions in the catchment area, and implemented socialization of water stewardship targeting 25 participants in the local community.

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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.*



Comment

The site has conducted a performance evaluation against the targets set in its water stewardship plan, presenting a clear comparison of its current performance using specific metrics. For water balance targets, the site initiated a three-phase piping improvement program aimed at reducing unaccounted water from 29.71% in Phase 1 to 18.7% in Phase 2, ultimately targeting 2.28% in Phase 3. This initiative showed measurable progress, improving water efficiency from 11.61 to 10.88 m³ per million cigarettes.

Regarding water quality targets, the site aimed to achieve 0% untreated wastewater released into the environment, while also working to reduce Biological Oxygen Demand (BOD) levels to below 50 mg/L and Chemical Oxygen Demand (COD) levels to below 120 mg/L. Current metrics indicate a BOD of 19 mg/L and COD of 53 mg/L, both well beneath the target thresholds.

For Integrated Water Resource Assessment (IWRA) targets, the site completed a Baseline Study that included an IWRA analysis, water quality status, and an assessment of water-related risks. Additionally, the site exceeded its tree planting target by planting 25 trees against a goal of 20, and successfully removed 840 kilograms of waste from irrigation channels, surpassing its target of 500 kilograms.

On the WASH front, the site also exceeded its participation goal in the Clean Living Behavior Education program, attracting 55 participants compared to an initial target of 30. A WASH Assessment was conducted with 290 respondents in two villages, and renovations at the integrated waste management facility were completed, including the installation of two leachate water tanks and two toilet facilities.

These performance evaluations demonstrate tangible progress against established targets, utilizing specific metrics. The efforts contribute to water stewardship outcomes such as Good Water Governance, Sustainable Water Balance, Good Water Quality Status, maintenance of IWRA, and Safe Water, Sanitation and Hygiene, with completion status tracked for implemented initiatives and measurable improvements recorded against baseline conditions.

4.1.2 *Value creation resulting from the water stewardship plan shall be evaluated.*



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Comment The site has completed a thorough assessment of its progress under the water stewardship plan, highlighting significant financial improvements. Water efficiency saw an enhancement from 11.61 to 10.88 m³ per million cigarettes, leading to cost savings of USD 7.57 in July alone. Groundwater extraction figures indicate a monthly consumption of 5,448.6 m³ from April to June at the previous rate, while July's consumption dropped to 2,246.2 m³ due to the improved efficiency.

In addition to the savings from enhanced water efficiency, the site reported a cost avoidance of USD 914.63 by adhering to wastewater management regulations set forth in PERMENLHK No. 14/2025. This compliance included upgrades to the sewage system and optimization of the Wastewater Treatment Plant (WWTP). Further, the site achieved an additional avoidance of USD 614.63 by preventing a two-day failure in clean water distribution, calculated from a daily requirement of 80 m³ at a cost of USD 3.84 per m³ after rehabilitating the deepwell pump.

The assessment also uncovered administrative violations related to water extraction, with potential sanctions ranging from IDR 5,000,000 to IDR 15,000,000 for various infractions in water management. Overall, the site's strategic investments have resulted in considerable cost savings, stemming from both operational efficiencies and compliance with regulatory requirements, effectively demonstrating the financial value of the water stewardship plan.

4.1.3 *The shared value benefits in the catchment shall be identified and where applicable, quantified.*



Yes

Comment The site has identified shared value benefits in the catchment area, supported by documented quantities. In terms of waste removal, the site successfully removed 840 kilograms of waste from irrigation channels and the Kandangjati River banks, exceeding the target of 500 kilograms.

For sanitation infrastructure, the site renovated one Integrated Waste Management Facility in the Pasar Sore Kraksaan District, constructed two leachate water tanks, and renovated two toilet facilities.

In community education, the site conducted a Clean Living Behavior Education program, engaging 55 participants, surpassing the target of 30 participants, in collaboration with the Kraksaan Health Center in the Ring 1 catchment area.

The site also provided 20 waste bins to the Probolinggo Regency Environmental Service, exceeding the target of 10 bins. Regarding vegetation, the site planted 25 tabebuaya trees in partnership with the Kandangjati community, surpassing the target of 20 trees.

Additionally, the site conducted a Baseline Study that included IWRA analysis, water quality status, water-related risks, and a WASH Assessment with 290 respondents across two villages: Kebonagung and Kraksaan Wetan. Socialization activities for water stewardship were completed with 25 participants from the local community.

Documented evidence shows improvements in infrastructure and community engagement activities, along with participant numbers and facility quantities.

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.*



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Comment	There have been no emergency cases for over 5 years, with management reviews conducted once per year. All events are logged in the online plant portal application, which is accessible only to EHS staff. Any emergency response is also discussed during EHS meetings. The site has established accident reporting and emergency response procedures.	
4.3	<i>Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.</i>	
4.3.1	<i>Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.</i>	 Yes
Comment	The site documented consultation efforts with stakeholders on water stewardship performance through the AWS Stakeholder Forum and Sharing Session held on February 20, 2025, at Bromo Park Hotel, Probolinggo. The event included 69 participants representing 27 stakeholders, including government agencies, industrial companies, academics, local communities, and media. The consultation addressed water-related risks in the Kertosono and Pengandangan Watersheds, with documented feedback from stakeholders. The Head of Kraksaan District reported flood risks and the need for river normalization collaboration. The Probolinggo Regency Health Service discussed Open Defecation Free (ODF) targets and sanitation facility improvements. UPT Welang Pekalen described tidal flooding mitigation through planned water gate construction in December 2024. The PUPR Service outlined flooding factors and drainage issues requiring collaborative solutions. Stakeholder feedback was collected through questionnaires, showing 98% agreement on water-related risks, with primary concerns including flood (36%), sanitation and hygiene (28%), and excess water use (20%). Communication records include written feedback forms, attendance lists from 27 organizations, and media coverage in local newspapers. The site also disclosed water stewardship reports to internal stakeholders via email to suppliers and partners, and engaged external stakeholders through community activities. Feedback surveys indicated that 94% of stakeholders received and reviewed the AWS report, 87% found program disclosures clear, and 69% confirmed site engagement in awareness-raising projects.	
4.4	<i>Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.</i>	
4.4.1	<i>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.</i>	 Yes
Comment	Since this is the initial certification for the site, the water stewardship plan will be evaluated after one year and will be presented in the stakeholder forum and during the internal site review in 2026.	

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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.	Yes
Comment	The organizational structure of AWS, along with its water governance policies, are documented internally and externally. These documents outline the positions within the company and their corresponding responsibilities regarding water stewardship and compliance with relevant regulations. The public can access reports outlining the company's efforts in these areas on our website's sustainability page. The public can access reports outlining the company's in the website: https://www.sampoerna.com/resources/docs/default-source/sampoerna-market-documents/annual-report-and-sustainability-report-202448e13bc16c7468f696e2ff0400458fff.pdf?sfvrsn=db9553c8_0	
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	The site discussed the WSP plan during a stakeholder meeting on February 20, 2025, and followed up with an email in July to August 2025. Communication took place through visits to the stakeholders' offices, as well as emails and messages. Documentation from the meeting is available.	
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.	Yes
Comment	The site summarized their water management performance on-site, including how they measured up against set targets. This information is available to the public via the company's website, direct message to the relevant stakeholder, and during stakeholder forums and meetings. On the website, the link address can be accessed at this link (page 150 -): https://www.pmi.com/resources/docs/default-source/pmi-sustainability/pmi-integrated-report-2024.pdf?sfvrsn=92e147c8_2 Based on the PMI report, the company has disclosed comprehensive quantified water stewardship performance metrics that demonstrate significant progress against established targets. PMI achieved a water intensity ratio of 2.3 cubic meters per million cigarette equivalents in 2024, substantially exceeding their aspiration of ≤3.1 and representing a 4% improvement from the previous year's 2.4 ratio. The company reported total water withdrawal of 3.23 million cubic meters in 2024, while achieving an impressive 31% absolute reduction in water consumption between 2018 - 2024 and a 51% reduction in water intensity versus the 2018 baseline.	
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.	

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- 5.4.1** *The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.*



Comment

The site conducted a documented assessment of shared water-related challenges within the Kertosono and Pengandangan watershed catchment area, identifying key risks including water scarcity, drought, flooding, poor sanitation and hygiene (WASH), inadequate wastewater infrastructure, unimproved solid waste management, and degradation of water-related areas. These challenges were systematically evaluated through a hydrogeological Baseline Study completed in May 2025, which mapped the catchment area, assessed Integrated Water Resources Areas (IWRA), analyzed water quality status, and identified significant water-related risks. The assessment was informed by stakeholder interviews, social mapping of 27 local stakeholders, WASH assessments in Ring-1 communities, and field observations, ensuring a comprehensive understanding of both ecological and socio-cultural dimensions of water risk.

The site addressed these shared challenges through a series of coordinated initiatives, including the installation of biopores and biofilters, replacement of underground water supply piping with above-ground systems, deepwell pump rehabilitation, wastewater treatment plant (WWTP) optimization, community-led drain normalization, tree planting, and the renovation of a temporary waste disposal site (TPS) in Kraksaan Wetan. These efforts were publicly disclosed in an integrated manner through the 2025 Alliance for Water Stewardship (AWS) Report, which presents each challenge alongside corresponding actions, responsible personnel, timelines, budgets, and performance outcomes. Disclosure was further strengthened through multi-channel engagement: internal communication via weekly radio broadcasts and email campaigns, external stakeholder forums—including the AWS Stakeholder Forum 2025 attended by 69 participants from 27 organizations such as local government, NGOs, community groups, and academic institutions—and direct outreach through socialization sessions and collaborative WASH education programs. Feedback was actively solicited via a dedicated stakeholder questionnaire and email, ensuring two-way communication. All shared challenges and mitigation actions were communicated together as part of a cohesive water stewardship strategy, with documented evidence of implementation, cost avoidance (e.g., USD 914.63 in regulatory compliance savings), and progress metrics (e.g., 100% completion of baseline and social mapping studies, 90% progress on TPS revitalization), supporting transparency and accountability.

- 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 engaged with both internal and external stakeholders through various communication methods, including emails, virtual meetings, and in-person discussions. This engagement was exemplified by a forum that gathered 69 participants from 27 different stakeholder organizations. The focus was on key public-sector agencies, such as the East Java Environmental Service, East Java Province Water Resources Public Works Department, Probolinggo Regency Environmental Service, Public Works and Public Housing Office, Health Office, and various district-level government offices. The forum achieved 98% agreement among stakeholders on water-related risks in the catchment area, identifying flooding (58%), sanitation and hygiene issues (45%), and excessive water use (32%) as primary concerns for the DAS Bango watershed.

The site demonstrated support for public-sector agencies through active collaboration and resource-sharing initiatives. The site organized knowledge exchange sessions where government agencies, including UPT Welang Pekalen, shared insights on river normalization programs and tidal flood management efforts. The Health Office discussed its Open Defecation Free (ODF) targets and clean water quality testing programs. The forum also facilitated partnerships, with agencies like PUPR agreeing to share inundation location analysis data for potential biopore and injection well projects. Additionally, the Environmental Service identified specific areas where stakeholder support was needed, such as waste boom installation, the construction of communal wastewater treatment plants, and community outreach programs. This collaborative approach fostered information sharing and coordinated planning for water stewardship initiatives across various government levels.

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5.5	<i>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.</i>	
5.5.1	<i>Any site water-related compliance violations and associated corrections shall be disclosed.</i>	 Yes
Comment	No water-related compliance violations or corrective measures to report.	
5.5.2	<i>Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.</i>	 Yes
Comment	There have been no water-related compliance violations and no associated corrections required.	
5.5.3	<i>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.</i>	 Yes
Comment	There have been no water-related compliance violations and no associated corrections required.	

Previous Findings

<i>All non-conformities raised in the previous audit have been satisfactorily closed.</i>	 N/A
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