

Alliance for Water Stewardship (AWS)

Audit Number: AO-001474

SITE DETAILS

Site: Haleon - Hsinchu, Taiwan

Address: No. 290-1, Chung Lun Village, Hsinfeng Township, 304151, Hsinchu County, Taiwan,

Republic Of China

Contact Person: Justine Chiang

AWS Reference Number: AWS-000697

Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core

Date of certification decision: 2025-Jul-21

Validity of certificate: 2028-Jul-20

AUDIT DETAILS

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

Audit Type(s): Initial Audit Audit Start Date: 2025-Mar-18 Audit End Date: 2025-Mar-20 Lead Auditor: Leong Siew Mui

Audit team participants:

Ralph Chen

Leong Siew Mui, Lead Auditor

Site Participants:

Justine Chiang, Utilities Manager Tien-Wei Yen, Jack, EHS / ENG Lead Black Hsiao, Factory EHS Manager JyunRong Huang, EHS Engineer David Huang, Utility



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AUDIT TIMES

Dates	Audit from	Duration	Auditor	Description
2025-Mar-1 8	08:00:00 - 17:00:00	09:00	Leong Siew Mui	Opening meeting, Site Tour, Catchme nt Tour, Documen t review
2025-Mar-1 9	08:00:00 - 17:00:00	09:00	Leong Siew Mui	Stakehold er Interview, Documen t Review
2025-Mar-2 0	08:00:00 - 17:00:00	09:00	Leong Siew Mui	Documen t Review, Closing Meeting



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ADDITIONAL INFO

Summary of Audit Findings: During the certification audit, 1 major non-conformities, 12 minor non-conformities, and 9 observations were raised. The major non-conformities were of sufficient concern to warrant the categorization of the non-conformity as major and related to Good Water Governance.

The client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 30 days of receipt of the audit report by 12 June 2025.

The major non-conformities must be closed within 90 days of receipt of the report. In order to meet this timeline, evidence is to be submitted to WSAS (within 75 days) by 28 July 2025.

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

The audit team recommends certification of Haleon - Hsinchu at Core level pending approval of the corrective actions plan for all non-conformities and closure of the major non-conformities.

CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully resolved the major non-conformity and submitted the corrective action plan addressing all findings.

Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit. The client is requested to upload evidence of implementation prior to the Surveillance Audit.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of Haleon - Hsinchu located in Hsinchu, Taiwan against the AWS International Water Stewardship Standard Version 2.

The Haleon – Hsinchu site is located at No. 290-1, Zhonglun Village, Xinfeng Township, Hsinchu County 304, Taiwan (R.O.C.), approximately 10 kilometers from Hsinchu City. The facility employs 210 staff and spans a total area of 35,772 square meters. The built-up area includes four main buildings, a packaging material warehouse, and a temporary waste storage area, totaling 14,049 square meters. Although situated in a non-industrial zone, the surrounding area includes nearby factories, ponds, and agricultural land.

The site is part of the global Haleon group, a consumer healthcare company. It is engaged in the production of over the counter (OTC) healthcare products, dietary supplements, and pharmaceuticals for both local and international markets. The primary production process at the Hsinchu facility involves dry processing, with key outputs including Centrum tablets and Advil tablets. Supporting infrastructure includes three steam boilers, a chiller, reverse osmosis (RO) water system, cooling tower, and an on-site wastewater treatment plant.

The facility's water supply is sourced from the Shimen Reservoir, which belongs to the Tamsui River Basin. Treated wastewater is discharged into the Xinfeng River, part of the Polo River Basin. Additionally, the site extracts underground water from a 180-meter-deep well tapping into the Taoyuan Zhongli Aquifer.

The onsite audit took place from 18 to 20 March 2025. Audit activities included a site assessment of the wastewater treatment plant, chemical storage, effluent discharge points, and a nearby canal where previously found fish mortality was observed near the farmlands. The audit also included stakeholder interviews and document reviews.

WSAS



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FINDINGS

NUMBER OF FINDINGS PER LEVEL

Observation 9 Minor 12 Major 1



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FINDING DETAILS

Finding No: TNR-017211

Checklist Item No: 1.2.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

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

process used for stakeholder identification shall be identified. This

process shall:

- Inclusively cover all relevant stakeholder groups including vulnerable.

women, minority, and Indigenous people;

- Consider the physical scope identified, including stakeholders,

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

water body or bodies;

- Provide evidence of stakeholder consultation on water-related interests

and challenges;

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

may vary across the relevant stakeholder groups;

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

interest and influence.

Findings: The site did not involve stakeholders effectively within the same

catchment area to identify their water-related challenges, and then shared water challenges. The site began consulting with the city council

two weeks before the audit. There is a lack of engagement and consultation with a broader group of multi-stakeholders effectively.

Corrective action: First, Site will identify the members of broader groups of

multi-stakeholders

Second, to start and identify water-related challenges by sending

electronic surveys to stakeholders.

To collect feedbacks from stakeholders and will analysis of the

challenges

Evidence of implementation: In the electronic survey, site includes the neighbor stakeholders in the

same catchment, including nearby factories, nearby residents, farmers,

schools, and water supply company.

As of 9:00 AM on July 1, 2025, a total of 42 questionnaires were received, of which 33 were valid questionnaires from the same catchment in Xinfeng/Hukou area, including: □neighboring residents (18), nearby business employees (13), nearby faculty members (1), and

nearby farmers (1).; Xinfeng area (24), Hukou area (9)



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Audit Number: AO-001474

Finding No: TNR-017297

Checklist Item No: 1.3.4

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

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

receiving water bodies shall be quantified. Where there is a

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

Findings: Although the site uses groundwater for cooling towers and fire tanks, its

quality has not been identified.

Corrective action: Site will do the ground water sampling for Cooling tower usage.

Finding No: TNR-017580

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: The site has conducted a thorough WASH (Water, Sanitation, and

Hygiene) analysis, ensuring compliance with Taiwan's legal

requirements. Based on feedback gathered from worker interviews, it has been noted that some female workers in the warehouse have expressed desire of having additional designated female restroom within the warehouse area. Currently, workers need to walk over to the admin building to access the nearest facilities, which they have indicated is

inconvenient.

Finding No: TNR-017898

Checklist Item No: 1.5.2 Status: Open

Finding level: Observation

Checklist item: Applicable water-related legal and regulatory requirements shall be

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

customary water rights.

Findings: The evidence of the site's effort to identify stakeholder-verified

customary water rights. However, due to the site just starting the efforts

of multi-stakeholder engagement and consultation, the

stakeholder-verified customary water rights will need to be verified in the

next audit.



Alliance for Water Stewardship (AWS)

Audit Number: AO-001474

Finding No: TNR-017227

Checklist Item No: 1.5.4

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: Water quality, including physical, chemical, and biological status, of the

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

Findings: There are areas of groundwater pollution within the watershed, with the

exceeding factors being manganese, ammonia nitrogen, and iron. However, underground water extraction point is not monitored, so it is not possible to determine whether this affects the water usage at this

plant.

Corrective action: Site will do the ground water sampling for extraction point at Site.

Finding No: TNR-017595

Checklist Item No: 1.5.6 Status: Open

Finding level: Observation

Checklist item: Existing and planned water-related infrastructure shall be identified,

including condition and potential exposure to extreme events.

Findings: To enhance the report's comprehensiveness, the site can include details

on both existing and planned water-related infrastructure, covering areas such as water supply, flood control, drainage systems, wastewater treatment, and emergency response strategies at the provincial, catchment, and city levels. Incorporating these elements will further demonstrate ongoing efforts toward continuous improvement in water

management.



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Audit Number: AO-001474

Finding No: TNR-017229

Checklist Item No: 1.6.1
Status: Closed
Finding level: Major

Due date: 2025-Aug-11

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

information gathered.

Findings: Site did not consult stakeholders on their water-related challenges,

therefore identification of shared water challenges was not done by linking the water challenges identified by stakeholders with the site's

water challenges.

Corrective action: Site will collect the feedback from stakeholders and identify what the

water challenges are from stakeholders.

Evidence of implementation: As of 9:00 AM on July 1, 2025, a total of 42 questionnaires were

received, of which 33 were valid questionnaires from the same catchment, including Neighboring residents (18), nearby business employees (13), nearby faculty and staff (1), and nearby farmers (1); Feedbacks can be categorized as water quality, water quantity, WASH

needs and further cooperation wills.

Water Quality:

Dissatisfaction with tap water quality: 12%

Dissatisfaction with stream/river water: 38%, of which 44% were dissatisfied with Jiadong River, 25% with Xinfeng River, 13% with Zhonglun River, 13% with Degui River, and 6% with Touqian River 79% of people are worried that irrigation water pollution will affect the

quality of crops

Water Quantity:

7% of people have water shortage problems; 7% of people have

flooding problems

WASH Needs:

62% of people want water-saving faucets; 17% of people want two-stage water-saving equipment, 10% of people want to add WASH

equipment, and 10% of people want to maintain toilet facilities.

Shared Water Challenges Conclusion:

1. 79% are worried that irrigation water pollution will affect the quality of crops

2. 38% are dissatisfied with creek water quality and 44% of which were dissatisfied with Jiadong River.

3. WASH: 62% of people want water-saving faucets;



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Audit Number: AO-001474

Finding No: TNR-017232

Checklist Item No: 1.6.2

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Feb-17

Checklist item: Initiatives to address shared water challenges shall be identified.

Findings: Site did not involve multi-stakeholders within the same catchment to

identify common share water challenges and therefore no relevant

initiatives were identified.

Corrective action: After collecting the shared water challenges feedback from

multi-stakeholders, site will review the relevant existing public sector efforts or plans before developing a plan to prevent duplication. The shared-water-challenge mitigation project will be implemented according

to priority.

Evidence of implementation: Shared Water Challenges:

1. Irrigation water pollution may pollute crops (79%)

2. WASH needs for water-saving taps (62%)

3. Creek pollution issue- Qiedong Creek (44%)

Please refer to the attachment for priority, public sector effort review and

plan.

Finding No: TNR-017299

Checklist Item No: 1.8.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: Relevant catchment best practice for water governance shall be

identified.

Findings: Lack of identification of best practices related to water governance.

Corrective action: Site will identify the best practice of water governance from

stakeholders.

WSAS STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)

Audit Number: AO-001474

Finding No: TNR-017249

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 itFinancial 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 development of the Water Stewardship Plan lacked consultation

with a broader group of stakeholders.

Finding No: TNR-017678

Checklist Item No: 2.4.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: A plan to mitigate or adapt to identified water risks developed in

co-ordination with relevant public-sector and infrastructure agencies

shall be identified.

Findings: No evidence provided to demonstrate engagement with relevant

infrastructure agencies to mitigate water risks.

Corrective action: Site will engage with relevant infrastructure agencies to mitigate water

risks by face-to-face discussions.

Finding No: TNR-017892

Checklist Item No: 3.1.2 Status: Open

Finding level: Observation

Checklist item: Measures identified to respect the water rights of others including

Indigenous peoples, that are not part of 3.2 shall be implemented.

Findings: This indicator refers to the water rights of others that are not part of legal

and regulatory requirements. It is closely related to stakeholder-verified customary water rights mentioned in indicator 1.5.2. Due to the site just starting the efforts of multi-stakeholder engagement and consultation, the measures to respect the stakeholder-verified customary water rights

will need to be verified in the next audit.



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Finding No: TNR-017897

Checklist Item No: 3.2.1 Status: Open

Finding level: Observation

Checklist item: A process to verify full legal and regulatory compliance shall be

implemented.

Findings: The site received a fine from Taiwan's Environmental Protection

Administration (EPA) on January 15, 2025 for violating Article 14, Paragraph 1 of the Water Pollution Control Act by not registering its

wastewater plant devices properly.

The 3 missing devices in the equipment list are:

- A fine screen machine was installed on-site, but it was not listed in the

permit documents.

- The T01-10 sand filter is connected to the T01-01 wastewater

regulation tank via a backwash water pipeline, but this pipeline was not

mentioned in the permit documents.

- Two pumping motors are installed in the T01-09 intermediate water

tank, but they were not listed in the permit documents.

The gap noticed by the EPA was not noted by the site's internal process.

Finding No: TNR-017612

Checklist Item No: 3.8.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

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

confirmation of receipt, shall be identified.

Findings: No evidence provided to demonstrate the site had engaged owners of

shared water-related infrastructure. There is no communication

evidence outlining who was engaged, how they were involved, or the key messages conveyed (such as whether concerns, risks, or challenges

related to shared infrastructure were addressed).

One incidence happened in 2021 where it caused the production

stoppage due to no water supplied and site was not notified beforehand.

Corrective action: Site will provide communication evidence which engaging owners of

shared water-related infrastructure. The communication evidence needs

to include who was engaged, how they were involved and the key

messages conveyed.



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Finding No: TNR-017613

Checklist Item No: 3.9.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: Actions towards achieving best practice, related to water governance, as

applicable, shall be implemented.

Findings: Due to the lack of identification of best practices 1.8.1, there is a lack of

clear actions towards achieving the best practices on catchment

governance.

Corrective action: Site will identify the best practice of water governance from

stakeholders.

Site collect the best practice ideas from stakeholders and execute these

best practices.

Finding No: TNR-017615

Checklist Item No: 3.9.4

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: Actions towards achieving best practice, related to targets in terms of

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

implemented.

Findings: The site has sealed the underground water well to prevent rainwater

infiltration, which could lead to pollution. Currently, the site does not monitor the underground water quality and has not established any

targets for it.

For the catchment IWRA, the site plans to purchase a drone for monitoring river conditions. This has just been planned, no

implementation started.

Corrective action: Site will monitor the underground water quality by quarterly sampling and

setup the sampling target.

Site will purchase Drone for monitoring river conditions bi-annually.

Finding No: TNR-017288

Checklist Item No: 3.9.5 Status: Open

Finding level: Observation

Checklist item: Actions towards achieving best practice related to targets in terms of

WASH shall be implemented.

Findings: There is a toilet outside of the warehouse but through workers feedback,

female employees in the warehouse area have requested the installation

of a female-designated toilet, as the current facilities are unisex.



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Finding No: TNR-017893

Checklist Item No: 4.1.3

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: The shared value benefits in the catchment shall be identified and where

applicable, quantified.

Findings: The site plans to purchase a drone and collaborate with the local

community to monitor river conditions and the IWRA mangrove areas within the catchment area. The site also aims to share the collected data with local authorities in the hope of encouraging more companies to join the water stewardship efforts. However, since this is a new initiative, no

shared value benefits have been identified yet.

Corrective action: Site will use Drone to collect related data and share the information to

stakeholders. Once the data sharing complete, stakeholders and site can identify what the value benefits are and start the improvement.

Finding No: TNR-017292

Checklist Item No: 4.3.1
Status: Open

Finding level: Observation

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

performance shall be identified.

Findings: The site lacks a formal stakeholder engagement strategy and has not

implemented effective consultation or engagement with relevant

stakeholders.

Finding No: TNR-017895

Checklist Item No: 5.2.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: The water stewardship plan, including how the water stewardship plan

contributes to AWS Standard outcomes, shall be communicated to

relevant stakeholders.

Findings: Information about the plan was communicated to internal stakeholders

only. The site is lacking communicating the water stewardship plan to

external stakeholders.

Corrective action: Site will communicate and share the water stewardship plan to external

stakeholders.



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Audit Number: AO-001474

Finding No: TNR-017896

Checklist Item No: 5.4.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2026-Mar-17

Checklist item: The site's shared water-related challenges and efforts made to address

these challenges shall be disclosed.

Findings: The shared water challenges have been identified and disclosed.

However, the site's efforts made to address these challenges are not clearly described. The site has not disclosed specific efforts, such as initiatives, collective actions, or their outcomes. As a result, meaningful

information is not being communicated to relevant stakeholders.

Corrective action: Site will communicate to relevant stakeholders and share the

information such as project initiatives, collective actions, and outcomes.

Finding No: TNR-018063

Checklist Item No: 5.4.2 Status: Open

Finding level: Observation

Checklist item: Efforts made by the site to engage stakeholders and coordinate and

support public-sector agencies shall be identified.

Findings: There is no evidence to demonstrate that the site conducted activities to

support public-sector agencies, as this was not addressed in Sections

1.2 and 2.4.1.



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Report Details			

ReportValueReport prepared byLeong Siew MuiReport approved bySa-Myeong GimReport approved on (Date)May 08, 2025

Surveillance

Proposed date for next audit

2026-Mar-16

Comment The next surveillance audit is proposed to be performed by 16 March 2026.

Stakeholder Announcements

Date of publication	Location
09/01/2025	https://a4ws.org/certification/stakehol der-announcements/ and https://a4ws.org/wp-content/uploads/2 025/01/StakeAnn-AWS-000697-Taiw an-Haleon-Hsinchu-002.pdf
09/01/2025	https://www.haleon.com/content/dam/ haleon/corporate/documents/our-imp act/environment/integrating-water-ste wardship/AWS-stakeholder-announce ment-Hsinchu.pdf
09/01/2025	posted at the gate



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Catchment Information

Catchment Information

Catchment Name

Polo Creek (Polo River) basin/catchment.

Water Supply & Discharge Catchment

The water supply is from Shimen Reservoir, which belongs to the Tamsui River Basin. The water ultimately discharges into Xinfeng Creek (Xinfeng River) at Polo Creek (Polo River catchment).

Groundwater Aquifers

According to Taiwan government publicly available information, the site belongs to Taoyuan Zhongli Terrace aquifers where the site deep well is 180 meters.

Catchment Water Service Providers

- Shimen Reservoir supplies water, with the source being the Dahan River, which belongs to the Tamsui River basin, and supplies water to the Xinfeng area through the Pingzhen Water Purification Plant.
- The site has a wastewater treatment plant that handles wastewater independently, discharging it into the Xinfeng creek. Stormwater is also discharged into the Xinfeng creek.

Catchment features:

- 1. The water supply of the site is from Shihmen Reservoir (Tamsui River Basin). In the past decade, due to climate change, a drought crisis occurs every three to five years. During drought, the government will activate drought-resistant wells. Feitsui Reservoir also uses tap water pipelines to support the water supply area of Shihmen Reservoir (Xindian area of Banqiao, New Taipei City) every year.
- 2. Starting from 2024, some areas in Taiwan are experiencing heavy rains, and there will be concerns about flooding. However, the site is 50 meters above sea level and has little rainfall in the region, so there is no concern about flooding.
- 3. The factory is located in the Polo River Basin, and there is a Xinfeng Mangrove Ecological Conservation area in the catchment.
- 4. No inter-basin water transfer
- 5. The reservoir catchment area has a subtropical climate.
- 6. The factory is located in the Polo River Basin, and the main discharges are industrial water, domestic sewage, and agricultural water.



Pic 1 - catchment map.png



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Client Description and Site Details

Client/Site Background



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The Haleon Hsinchu site is located at No. 290-1, Zhonglun Vil., Xinfeng Township, Hsinchu County 304, Taiwan (R.O.C.).

The site is located in a non-industrial area, but there are factories nearby, and there are ponds and farmland in the vicinity.

The main products of the Hsinchu factory are Centrum tablets and Advil tablets.

M	lain	wat	er ı	usage	points	for	Cent	rum	tab	let	S
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Ш	Film coating coater, using puritied water for dissolution.
	Granulation Glatt, using a small amount of room temperature purified water to prepare
the	ael.

 $\ \square$ Cleaning equipment, using hot water and room temperature water, first cleaned with city water, then with purified water.

The production of Advil only involves packaging and does not involve production water; water is only used for cleaning equipment and rooms.

Utilities:

There are three steam boilers, each equipped with a soft water and RO system. Boiler-heated water is used for production cleaning and employee showers.

Both the production workshop and office area use an air conditioning system. The air conditioning is cooled by a chiller and cooling tower.

Water-related infrastructure:

52% of the factory's water comes from city water, and 48% comes from groundwater with the well located within the factory.

The city water inlet is located on the southwest side of the factory and is provided by the second district of the city water company, with the water source being the Shimen Reservoir city water. After entering the factory, the city water is divided into four routes, supplying the administration building, utility building, sewage station, and production buildings.

The administration building, utility building, and sewage station directly use city water.

The steam boiler in the utility building uses RO water made from city water and pure water recycled from the pure water.

The production workshop is divided into three routes: office and living water, production cleaning hot water, and production pure water. The pure water preparation equipment is located on the 2nd floor of the production workshop, with a preparation capacity of 2 tons per hour. The pure water preparation process includes sand filtration, activated carbon, softened water-ion exchange, and reverse osmosis. The RO water is further processed through CEDI and UV processes to produce pure water which is stored in a 3-ton pure water tank.

Groundwater from the well, after aeration, sedimentation, and sand filtration pre-treatment, is stored in the factory's fire water pool (1000 tons) and used for firefighting and cooling tower.

The factory's RO rejected water is recycled to the cooling tower for replenishment, and pure water is reused in the boiler hot water tank.

City water is used for landscaping.

Wastewater and stormwater are discharged:

The sewage treatment plant and drainage outlet are located on the southwest side of the factory, treating wastewater from the administration building, utility building, production area, and office. The wastewater treated by the sewage treatment plant is discharged into the southwest creek (Xinfeng Creek), which eventually flows into Hongmao Gang and then into

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the Taiwan Strait.

The stormwater discharge outlet and the wastewater discharge outlet are in the same location, with separate upper and lower pipelines, both discharging into the Xinfeng Creek.

Description of the site:

The Hsinchu factory has 210 employees, a factory area of 35,772 square meters, four main buildings, a packaging material warehouse, and a temporary waste storage area, with a total floor area of 14,049 square meters.



Rain and WW drainage system.png



Pic 2 - detail site boundary map.png



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Summary of Shared Water Challenges

Summary of Shared Water Challenges

Shared Water Challenges Based on Aqueduct Water Risk Atlas, Literature Review, City Council Officer's Interview, and Site Assessment:

1. Water Quantity

Due to climate change, the Taiwan region experiences periodic droughts, occurring every few years, particularly when rainfall is insufficient (especially in the absence of typhoons).

Currently, the site has adequate water resources, as it also utilizes underground water. However, nearby factories sometimes face water shortages during drought seasons.

The city government plans to develop 300 hectares of land for industrial and commercial use in the future. As water scarcity could become a potential issue, the government is considering sourcing water from nearby cross-catchment areas to support the future development.

2. Water Quality

There is no government monitoring of water quality along the river near the site. Additionally, two nearby factories have been identified by the government as sources of pollution. The government officer recommended that the site install a monitoring system to demonstrate compliance. In response, the site has installed a 24-hour online monitoring system for water discharge, which is currently in the testing phase.

Water quality tends to deteriorate during the Typhoon season (June - August).



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0.1	General Requirements for Single Sites, Multi-Sites and Groups	
0.1.1	Eligibility Criteria	
0.1.2		
0.1.2.1	Have any water source locations and water-related discharge locations been visited during the audit, if so, which and where? If none were visited please provide justification.	⊘ Yes
Comment	The site sources water from the city supply and underground water. The underground water well, discharge point and a nearby canal (where a fish mortality incident occurred) were visited during the audit.	er
0.1.1.1	The site(s) occupy one catchment OR an exception has been granted.	⊘ Yes
Comment	The site occupies one catchment at Polo Creek catchment.	
0.1.1.2	The scope of the proposed certification shall be under the control of a single management system.	⊘ Yes
Comment	The scope of the proposed certification is under the control of a single management system	١.
0.1.1.3	The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.	⊘ Yes
Comment	The scope of the proposed certification is homogeneous with respect to primary production system, water management, product range, and the main market structures.	



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STEP 1: GATHER AND UNDERSTAND

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

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



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

Comment

The site has created a boundary map that outlines the site's perimeter and internal layout. It also identifies key water-related infrastructure, such as the municipal wastewater treatment plant, the municipal water plant, the wastewater receiving body, and the ultimate water sources. Rainwater is directly discharged through the drainage system, while domestic and industrial wastewater is treated at the wastewater treatment plant before being released into the water body. The discharge points are clearly marked on the layout map.

The site has developed a document titled "1.1.1 Site and Watershed Physical Boundaries, Version 3." which includes the following:

- The site's location on Taiwan map.
- A map showing the water supply route from Shimen Reservoir to the Pingzhen City Water Purification Treatment Plant, which then supplies to the site.
- A map of the Shimen Reservoir catchment area boundary.
- Taiwan Groundwater Supply Map from the Water Resources Agency's Chinese Global Information Network Groundwater (wra.gov.tw)
- A detailed map of factory boundaries and on-site water-related facilities.
- A map of Factory Stormwater/Wastewater Discharge Pipelines.
- A map showing water discharge points, wastewater service providers, and the final receiving water body.
- A map of the catchment IWRA.
- 1.2 Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.
- **1.2.1** Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:



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

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Comment

The site has established a four-step stakeholder identification process.

Step 1 - identify the physical locations

Step 2 - categorization

Step 3 - identified stakeholders based on categories

Step 4 - other factors

Ten stakeholders such as the government agencies, suppliers, nearby companies, local community, staffs were identified. The corresponding influence and interest were categorized as low, medium and high levels (this includes the categorization of how the site impact the identified stakeholders and how the stakeholders impacting the site, the interest from the stakeholders regarding AWS collaborations). The site populated the relevant information in a table where the table also includes source of information, possible impacts occur, prioritization, reasons, engagement, common water challenges, and progress updates. There are no indigenous people in the surrounding areas.

The site had reached out to some of the stakeholders within the same catchment area to try to identify shared water challenges. However, some stakeholders did not response to the site. The site began consulting with the city council two weeks before the audit. The efforts of engaging broader group of multi-stakeholders consultation are lacking.

Finding No: TNR-017211

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.



Comment

The site has developed an analysis table of stakeholders, and the degree of influence between the site and stakeholders has been identified for each stakeholder. For example: The Environmental Bureau engagement is rated as high priority because the bureau has the authority to issue fine/compound to the site (high), the site has medium impact to the bureau, the interest from the bureau to the site is rated as low (this is because the environmental bureau only checks on companies when the companies violating the law). From the assessment, overall, it is categorized as high priority and required more attention from the site. The outcome from this assessment is the site is running water test by itself, engaging 3rd party laboratory to test the water quality and also recently installing new on-line water quality monitoring system. Currently the system is under testing and calibration phase and once the device is calibrated and data stabilized, the system will be running 24 hours monitoring and the site intend to share the data with the government in the future to drive the water stewardship initiative.

- 1.3 Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.
- **1.3.1** Existing water-related incident response plans shall be identified.



Comment

The site has developed a series of water-related incident response plans covering various scenarios. These scenarios include emergency plans for chemical spills, extreme weather events (such as floods and typhoons), wastewater management, and the Business Continuity Plan (BCP). The plans are documented in the following documents:

- Haleon, QD-SOP-022048
- Hsinchu_BCP_City & Purified Water_v2
- Hsinchu_BCP_Waste Water_v2

The site BCP (business continuous plan) for incident response on purified water system damage, city water shortage and wastewater treatment infrastructure damage, site EHS emergency SOP and chemical leakage response evidence were reviewed during audit.

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



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Comment

The site has identified and mapped its water balance components, including inflows (city water supplies and underground water), losses, storages, and outflows (wastewater discharged, cooling tower evaporation, sludge water content, process water, and other losses, as well as storage tanks).

- The factory sources 52% of its water from city water, provided by the second district of the city water company, with the Shimen Reservoir as the water source. The city water is divided into four routes supplying the administration building, utility building, sewage station, and production buildings.
- The factory also uses 48% groundwater, drawn from a well within the factory. After aeration, sedimentation, and sand filtration, the groundwater is stored in the factory's fire water pool (1,000 tons) for firefighting and cooling tower use.
- Three steam boilers in the factory are equipped with soft water and reverse osmosis (RO) systems. The utility building's steam boiler uses RO water made from city water and recycled pure water.
- The production workshop has a pure water preparation system with a capacity of 2 tons per hour, using sand filtration, activated carbon, softened water-ion exchange, and reverse osmosis, followed by CEDI (Continuous Electrodeionization) and UV treatment to produce pure water. The pure water is stored in a 3-ton tank and used for production processes, cleaning, and employee showers.
- Groundwater is used in the cooling tower, and RO reject water is recycled into the cooling tower for replenishment. City water is also used for landscaping.
- Wastewater from the administration, utility, production, and office areas is treated at the sewage treatment plant and then discharged into the southwest creek (Xinfeng Creek), which flows into Hongmao Gang and eventually the Taiwan Strait.
- Stormwater and wastewater are both discharged into Xinfeng Creek, with separate pipelines for each.
- 1.3.3

Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high and low variances shall be quantified.



Comment

The site conducts an annual water balance analysis and creates a water balance diagram, which identifies water inflows (city water supplies and underground water) and water outflows (wastewater discharged, cooling tower evaporation, sludge water content, process water, and other losses, as well as storage tanks). The site tracks this data through government water bills and site water meters. The inputs, losses, storage, and outputs of water are quantified. Based on this analysis, the site has categorized its water risk as low due to a sufficient water supply, and the water balance is maintained within 3%.

Water usage data:

2023:

o City water: 59%

O Underground water: 41% (with the cooling tower being the largest consumer, accounting

Water balance: Total In (33,228 m³) and Total Out (32,146 m³), with a balance within 3%.

2024:

o City water: 52%

 Underground water: 48% (with the cooling tower being the largest consumer, accounting for 47%)

Water balance: Total In (29,747 m³) and Total Out (28,771 m³), with a balance within 3%.

Compared to 2023, the site's water withdrawal volume has been reduced by 10.5% in 2024. Catchment data published by the local government shows high water levels from April to July, which corresponds to the rainy season.

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Water quality of the site's water source(s), provided waters, effluent and 134

receiving water bodies shall be quantified. Where there is a

in progress

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

Comment The site has tested the incoming city water supply for pH, coliform, and TAMC.

The site did not provide an underground water extraction water quality testing report. The

underground water is used for cooling towers and fire tanks.

The site performs water testing for wastewater monthly and every 6 months will engage a 3rd party to conduct wastewater testing.

Based on document review, there were 6 companies having different kinds of pollutants in

water around Hsinchu areas (data from a publicly available website).

The water quality of the receiving water body has been presented using government-collected

public data. (refer to 1.5.4)

Finding No: TNR-017297

1.3.5 Potential sources of pollution shall be identified and if applicable.

• Yes

mapped, including chemicals used or stored on site.

The site has documented potential pollution sources in the Factory Incident Response Plan and the chemical/waste registries, MSDS, BCP, and relevant law registries as well. Additionally, the locations of these sources, including chemical storage areas and fuel storage areas, have been mapped.

On-site Important Water-Related Areas shall be identified and mapped, 1.3.6 including a description of their status including Indigenous cultural values.

• Yes

Comment

Comment

In assessing the IWRA, the site classified them into four main categories: environmental, social, cultural, and economic. The methods and sources of information used for identifying IWRAs include:

- Maps and satellite imagery
- Public information platforms, such as the Hydraulic Geographic Consulting Service Platform
- Reports, plans, and other publications from regulatory bodies, environmental agencies, and water service providers
- The factory's own internal knowledge

Based on the assessment, the site has classified its 180-meter-deep underground borehole as an internal IWRA. The site mentioned that the deep well has potential shared value, as it could be used to supply groundwater to other factories and the local community. The site also stated that it had developed an actual plan to implement this, but the plan is currently on hold. At present, the deep well is neither publicly available nor provides shared value, such as ecological or cultural significance, and therefore it does not qualify as an IWRA at the moment

No other significant wetlands, ponds, lakes, parks, or important water-related areas were identified within the boundaries of the Hsinchu factory.

1.3.7 Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.

Yes

Comment

The site has been documenting annual water-related costs since 2021 and revenue since 2024. These costs include expenses for water heating, chilling, purification processes, annual salaries for employees involved in water resource management, water quality monitoring, wastewater treatment, AWS activities, and other related expenditures. The water revenue generated from wastewater recovery and wastewater chemical adjustment is NTD8,650 from 500 tons of water.



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1.3.8	Levels of access and adequacy of WASH at the site shall be identified.	Q Obs.
Comment	The site has conducted a thorough WASH (Water, Sanitation, and Hygiene) analysis, ensuring compliance with Taiwan's legal requirements. Based on feedback gathered from worker interviews, it has been noted that some female workers in the warehouse have expressed a desire to have additional designated female restrooms within the warehouse area. Currently, workers need to walk over to the admin building to access the nearest facilities, which they have indicated is inconvenient.	
1.4	Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.	
1.4.1	The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.	⊘ Yes
Comment	The site had analyzed the primary inputs (e.g., the vitamins, chemicals, etc.), and the ana also took into consideration the volume usage when the site identified the suppliers. There were 10 key suppliers being identified, and none of them are in the Polo River catchment where the site is located or the Tamshui River catchment, where the site's ultimate water source is located.	
1.4.2	The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	⊘ Yes
Comment	There is only one outsource service provider (laundry shop for uniform washing), and it is in the same Polo River catchment, so this section is not applicable.	not
1.5	Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH	
1.5.1	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.	V Yes
Comment	The site has identified and compiled a list of water governance initiatives from the Taiwan government's policy book, which promotes water sustainability. These initiatives encomparareas such as water usage, recycling, reuse, water quality improvement, increasing water supply, monitoring discharges, and preventive actions related to climate change.	ISS
1.5.2	Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified	Q Obs.

customary water rights.



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Comment

Applicable water-related legal and regulatory requirements are identified, such as:

- Water Pollution Prevention and Control Measures Plan
- Water permit regulations
- Drinking Water Management Act (January 27, 2006)
- Enforcement Rules of the Drinking Water Management Act (August 7, 2006)
- Drinking Water Quality Standards (May 23, 2022)
- Drinking Water Source Quality Standards (September 24, 1997)
- Water Resources Act (June 28, 2023)
- Enforcement Rules of the Water Resources Act (November 12, 2018)
- Drainage Management Regulations (June 23, 2020)
- Regulations for Water Rights Allocation or Rotational Use During Water Source Shortages (February 6, 2002)
- Public Water Supply Act (June 28, 2023)
- Enforcement Rules of the Public Water Supply Act (June 21, 2022)
- Public Water Supply Quality Standards (May 24, 2022)
- Recycled Water Resources Development Act (May 18, 2022)
- Recycled Water Quality Standards and Usage Compliance Regulations (October 17, 2016)
- Water Pollution Control Act (June 13, 2018)
- Enforcement Rules of the Water Pollution Control Act (December 21, 2018)
- Water Pollution Prevention Measures and Testing Reporting Management Regulations (October 24, 2022)
- Water Pollution Prevention Measures Plan and Permit Application Review Management Regulations (May 31, 2021)
- Effluent Discharge Standards (April 29, 2019)
- Soil and Groundwater Pollution Remediation Act (February 3, 2010)
- Groundwater Pollution Monitoring Standards (December 18, 2013)
- Groundwater Pollution Control Standards (December 18, 2013)
- Surface Water Body Classification and Water Quality Standards (September 13, 2017)
- Guidelines for Penalty Amounts and Fines for Wastewater Treatment Personnel Violating the Water Pollution Control Act (May 19, 2016)
- Regulations for the Installation and Management of Facilities and Monitoring Equipment to Prevent Contamination of Groundwater by Storage Systems (October 11, 2022)
- Regulations for Soil and Groundwater Testing for Record-Keeping by Competent Authorities (Amended March 9, 2017)
- Emergency Response Regulations for Industrial or Sewerage Systems Discharging Wastewater (August 26, 2005)
- **1.5.3** The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.





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Comment

The Catchment Water Balance report compiled data on catchment water, including rainfall and groundwater usage, and monitored 116 independent river systems across Taiwan. The report analyzes water usage across various sectors: domestic, industrial, agricultural (including irrigation, livestock watering, and farming activities), and public water supply (for municipalities, communities, and public services such as firefighting and street cleaning).

The Catchment Water Balance report concluded few key findings on water supply and industrial impact:

- Water Supply Gap Forecast: Without additional water resource enhancement measures, and considering regional variations in water demand, the Hsinchu area is expected to face a daily water supply shortfall of approximately 185,000 metric tons by 2036. To mitigate this, the government has focused on improving water resource management, including promoting water conservation laws, reducing leakage in public water systems, and implementing agricultural water-saving initiatives. Efforts to develop alternative water sources, such as recycled water and desalinated water, continue.
- Government Initiatives: Key initiatives include the 2019 launch of the "Taoyuan-Hsinchu Backup Pipeline Project," with a 2.78 billion NTD investment, which increased the water supply capacity of Shihmen Reservoir from 78,000 to 200,000 metric tons per day. The Haleon factory in Hsinchu currently utilizes this pipeline. Additionally, the WRA is also working on the "Nanshixi Water Diversion to Shihmen Reservoir" project, which aims to further boost the reservoir's water inflow. The feasibility study for this project is expected to be completed by year-end.
- Industrial Water Demand: By 2026, industrial water demand in Hsinchu is projected to rise significantly, adding further strain to the public water supply system.
- Groundwater Usage and Associated Risks: Hsinchu has the highest groundwater usage in northern Taiwan, with an annual extraction of 1.125 billion tons. Over-extraction could lead to subsidence and increased risks of damage to underground infrastructure.

Sources of information:

- 1. 2021 Annual Statistical Report of the Northern Region Water Resources Office, Water Resources Agency, Ministry of Economic Affairs
- 2. National Water Environment Improvement Plan (September 2020)
- 3. Basic Water Resources Management Plans for Regions of Taiwan (Available on the Chinese version of the Water Resources Agency's Global Information Website Plan Descriptions: wra.gov.tw)

The water source for the site is the Shihmen Reservoir. The catchment area is approximately 763 square kilometers. There are a total of 10 rainfall stations in the catchment area. The average annual rainfall is 2,671 millimeters

(https://www.wranb.gov.tw/3452/3463/25341/25565/). The tap water supply for Haleon's Hsinchu factory comes from the joint Taoyuan-Hsinchu water supply, with the source being the Shihmen Reservoir.

The tap water supply in the Taoyuan area is entirely sourced from the Dahan River, with a current supply of 1.354 million tons per day. From 2016 to 2021, the water usage was approximately 1.2 million tons per day, with the supply exceeding demand and the surplus is used to support Hsinchu area.

The Shihmen Reservoir Catchment has seasonal variances in its rainfall where June - October (5 months) with more rainfalls:

January: 57 mm. February: 79 mm. March: 134 mm. April: 105 mm. May: 230 mm. June: 343 mm. July: 280 mm. August: 280 mm. September: 292 mm. October: 255 mm. November: 72 mm. December: 79 mm



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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.





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Comment

The water quality of the catchment, including the reservoir and receiving water body, has been assessed using publicly available data from the Aqueduct Water Risk Atlas and Taiwan government website. The collected data includes the following:

- 1. Physical Risk Quantity: Medium to high risk. The analysis covers Water Stress, Water Depletion, Interannual Variability, Seasonal Variability, Groundwater Table Decline, Riverine Flood Risk, Coastal Flood Risk, and Drought Risk.
- 2. Physical Risk Quality: Medium to high risk. The analysis includes untreated connected wastewater and Coastal Eutrophication Potential (CEP).
- 3. Regulatory and Reputational Risks: Low risk. The analysis includes Unimproved or No Drinking Water, Unimproved or No Sanitation, and Peak Reputational Risk (ESG risk).

According to the 2022 Environmental Water Quality Monitoring Annual Report, Taiwan conducted environmental water quality monitoring across:

54 river basins, 52 reservoirs, 463 regional groundwater monitoring wells. All detailed results are published regularly on the National Water Quality Monitoring Information Website: https://wq.epa.gov.tw

Key Findings for River Water Quality (2022) General Water Quality Parameters pH value had the highest compliance rate: 97.8%

Total phosphorus had the lowest compliance rate: 24.5%

Four-parameter total compliance rate (Dissolved Oxygen, BOD, Suspended Solids, Ammonia Nitrogen): 28.4%

Heavy Metal Water Quality Parameters Cadmium, Hexavalent Chromium, Mercury, Selenium, and Silver: 100.0% compliance

Manganese had the lowest compliance rate: 43.3%

Six-parameter total compliance rate (Cadmium, Lead, Hexavalent Chromium, Copper, Zinc, Mercury): 94.8%

38 river basins had 100% compliance for all six heavy metals, accounting for 70.4% of monitored river basins.

Trend Over the Past Decade

In 2022, the proportion of unpolluted rivers decreased. Slightly and moderately polluted rivers increased, indicating a potential decline in overall river water quality compared to previous years.

Key Results Compared to Groundwater Pollution Monitoring Standards:

The concentrations of the following substances were below regulatory standards in over 90.0% of samples:

Total Hardness

Chloride (CI□)

Fluoride (F□)

Nitrate Nitrogen (NO□□-N)

Sulfate (SO□2□)

Total Phenols

Total Organic Carbon (TOC)

Arsenic (As)

Cadmium (Cd)

Chromium (Cr)

Copper (Cu)

Lead (Pb)

Zinc (Zn)

Mercury (Hg)

Nickel (Ni)

Other parameters had lower compliance rates:

Total Dissolved Solids (TDS): 88.7%

Ammonia Nitrogen (NH□-N): 59.9%

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Iron (Fe): 73.5%

Manganese (Mn): 51.9%

Overall Compliance Rate

The total proportion of monitoring results below pollution standards in 2022 was 92.2%, a slight increase compared to 92.0% in 2021.

Additionally, areas of groundwater pollution have been identified within the watershed, with elevated levels of manganese, ammonia nitrogen, and iron. However, as the underground water extraction points are not monitored, it is not possible to determine the potential impact of this contamination on the water usage at the plant.

https://wq.moenv.gov.tw/EWQP/zh/ConService/DownLoad/AnnReport.aspx

Finding No: TNR-017227

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.



Comment

The "Important Water-Related Areas of the Watershed" report outlines various IWRAs across nearby catchment areas, including the catchment to which the site belongs. These IWRAs have been compiled from government-published documents.

The website of the Forestry and Nature Conservation Department of the Ministry of Agriculture (Nature Conservation Network) highlights the nature reserves and wildlife protection areas in northern Taiwan. https://conservation.forest.gov.tw/total

From the map, it has been identified that the Xinfeng Mangrove Park is an IWRA located within the same catchment as the site. The site is currently planning to purchase a drone to monitor the mangrove area and intends to share its study findings with local government authorities. This effort aims to foster collaboration with a broader group of stakeholders to protect the IWRA.

The Xinfeng Mangrove Ecological Protection Area is not listed under the jurisdiction of the Forestry and Nature Conservation Agency of the Ministry of Agriculture. It is designated as a natural ecological and recreational area. The estuary area is classified as moderately polluted.

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

Q Obs



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Comment

The report offers a comprehensive overview of water-related infrastructure, covering critical facilities such as water dams, groundwater extraction systems, desalination plants, and reclaimed water systems. It highlights that Hsinchu faces an 11.63% leakage rate due to aging piping networks, with the government currently allocating funds to address this issue.

Additional risks identified include sedimentation in Shihmen Reservoir, which occupies 34.28% of its total capacity, categorizing it as a high-risk (red zone) area. The report also examines the potential impacts of extreme events, such as floods and droughts, and outlines proposed mitigation strategies.

One specific incident, occurring 1-2 years ago, involved a burst water pipe in areas affected by nearby construction activities, leading to a temporary disruption of the water supply. The facility's 3-ton water storage capacity was sufficient to support half a day's production needs, and government-led repairs typically take 3-4 hours. As part of the Business Continuity Plan (BCP), water is stored in tanks for emergency use, ensuring that production has not been significantly impacted.

To enhance the report's comprehensiveness, the site can include details on both existing and planned water-related infrastructure, covering areas such as water supply, flood control, drainage systems, wastewater treatment, and emergency response strategies at the provincial, catchment, and city levels. Incorporating these elements will further demonstrate ongoing efforts toward continuous improvement in water management.

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



Comment

The site conducted research on public WASH facilities in the catchment. The public WASH facilities are mapped in the catchment and sufficient. According to the Ministry of the Environment website in Taiwan, the Environmental Health Management Information System allows for searching the number and location of public restrooms in Taiwan and demonstrates has sufficient WASH facilities.

https://esms.moenv.gov.tw/

- 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.





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Comment

Shared Water Challenges Based on Aqueduct Water Risk Atlas, Literature Review, City Council Officer's Interview, and Site Assessment:

1. Water Quantity

Due to climate change, the Taiwan region experiences periodic droughts, occurring every few years, particularly when rainfall is insufficient (especially in the absence of typhoons).

Currently, the site has adequate water resources, as it also utilizes underground water. However, nearby factories sometimes face water shortages during drought seasons.

The city government plans to develop 300 hectares of land for industrial and commercial use in the future. As water scarcity could become a potential issue, the government is considering sourcing water from nearby cross-catchment areas to support the future development.

2. Water Quality

There is no government monitoring of water quality along the river near the site. Additionally, two nearby factories have been identified by the government as sources of pollution. The government officer recommended that the site install a monitoring system to demonstrate compliance. In response, the site has installed a 24-hour online monitoring system for water discharge, which is currently in the testing phase.

Water quality tends to deteriorate during the Typhoon season (June - August).

Shared water challenges were identified and prioritized and only consulting with the city council officer but not consulting with various stakeholders within the same catchment,

Finding No: TNR-017229

1.6.2 Initiatives to address shared water challenges shall be identified.

in progress

Comment

Shared water challenges were identified and prioritized without consulting with various stakeholders within the same catchment and therefore no relevant initiatives were identified.

Finding No: TNR-017232

- 1.7 Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6.
- 1.7.1 Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.



Comment

The site assesses its water risks and presents them in a summarized table. The analysis is conducted using the WRI Aqueduct Risk Assessment and the results are organized according to the Rubric. Water risks are categorized into physical, regulatory, and reputational risks. These risks include issues such as droughts, typhoons, water meter costs, water consumption, employee expenses related to water management, wastewater treatment costs, and more. The table also outlines the responsible individuals, project prioritization, and expected return on investment. Some of the outcomes from the risk assessments are if drought season happens, the site will purchase water (which will increase cost of operations). During typhoon season, the water quality will be impacted especially if there's floods and might impacting the water purifying processes.

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



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Comment The site identified water saving projects as water-related opportunities. Potential savings are

evaluated. The wastewater reuse saved NTD10,500 annually.

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.

in progress

Comment The site did not identify catchment related best practice for water governance such as no

efforts in

1) Collaboration and partnerships: Engaging with local communities, governments, businesses, and other stakeholders to develop and implement water stewardship initiatives and sharing of knowledge and resources.

2) Education and awareness: Conducting training to raise awareness about water conservation, pollution prevention, and the importance of responsible water management.

Finding No: TNR-017299

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 has identified best practices from five different award-winning companies across

various industries. By studying these successful cases, the site has developed several initiatives that can be adopted, such as water recycling, water re-used, use of drones to monitor the catchment IWRA mangrove areas and implementing a 24-hour online water quality monitoring project, among others.

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

Yes

Comment The site has identified best practices from five different award-winning companies across

various industries. By studying these successful cases, the site has developed several initiatives that can be adopted, such as implementing a 24-hour online water quality monitoring project, among others.

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



Comment The site has identified best practices from five award-winning companies across various

industries. By analyzing these successful cases, the site has developed several initiatives for adoption, such as using drones to monitor changes in the catchment IWRA mangrove areas over time. The site plans to share the collected data with local authorities and hopes to inspire

more companies to participate in water stewardship efforts.

1.8.5 Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.



Comment The site has identified sector-specific and catchment best practices to ensure the provision of equitable and adequate WASH (Water, Sanitation, and Hygiene) services, including:

Ensuring a sufficient supply of safe drinking water for all workers, suppliers, and contractors on site.

Upgrading toilet and washroom facilities.

Offering training to workers on proper hygiene practices.

WSAS



Alliance for Water Stewardship (AWS)

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2 STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan

2.1 Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.

2.1.1 A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:



- That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes
- That the site implementation will be aligned to and in support of existing catchment sustainability plans
- That the site's stakeholders will be engaged in an open and transparent way
- That the site will allocate resources to implement the Standard.

Comment

A water stewardship commitment that follows all the AWS core criteria has been signed by Haleon Site Leadership on 11/20/2024. The commitment includes all the necessary element and has been displayed on website.

https://posts.gle/NMUUgrexcYEeCC6j9?g st=im

- **2.2** Develop and document a process to achieve and maintain legal and regulatory compliance.
- 2.2.1 The system to maintain compliance obligations for water and wastewater management shall be identified, including:
 Identification of responsible persons/positions within facility organizational structure



- Process for submissions to regulatory agencies.

Comment

The site has established an organizational structure that defines roles and responsibilities, identifies the responsible individuals and their positions, and outlines the competencies required to ensure the submission and maintenance of compliance obligations.

Haleon Hsinchu Factory – Regulatory Compliance System Description 2022–2023:

The Hsinchu factory commissioned consulting firm ERM to review EHS-related regulatory updates on a quarterly basis. Relevant updates were presented and advocated in the Occupational Safety and Health Committee, with compliance status reviewed accordingly.

2024:

The EHS specialist at the Hsinchu factory checks for regulatory updates on government websites on a quarterly basis. Updates are advocated in the Safety and Health Committee meetings, and compliance is reviewed.

Starting from 2025:

The EHS specialist will conduct these regulatory reviews on a monthly basis. The specialist will check government websites for updates, present the changes to the Safety and Health Committee, and assess the compliance status and update the registries.

2.3 Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.

WSAS



Yes

Q

Obs.

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Comment

2.3.1 A water stewardship strategy shall be identified that defines the

overarching mission, vision, and goals of the organization towards good

water stewardship in line with this AWS Standard.

The site has documented its water stewardship strategy. This defines the overarching

mission, vision, and goals of the organization towards good water stewardship in line with this

AWS Standard. It is disclosed on their website.

https://www.haleon.com/our-impact/environment

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

- How it will be measured and monitored

- Actions to achieve and maintain (or exceed) it

- Planned timeframes to achieve it

- Financial budgets allocated for actions

- Positions of persons responsible for actions and achieving targets

- Where available, note the link between each target and the achievement of best practice to help address shared water challenges

and the AWS outcomes.

Comment The site has developed a Water Stewardship Plan (for 2023, 2024, and 2025) that aligns with the five outcomes of AWS: good water governance, sustainable water balance, good water quality, IWRA, and WASH.

The plan addresses a range of issues and opportunities related to physical, reputational, and regulatory risks, as well as shared water challenges. These challenges were identified through a literature review and consultations with local authorities, though the plan did not include input from a broader group of multi-stakeholders. The plan features data analysis, project prioritization, budget allocation (cost), risk ratings, action plans, assigned responsibilities, target KPIs, progress tracking, generated revenues, stakeholder meetings, and project

completion status.

However, the site recognizes that it missed the opportunity to consult a larger group of multi-stakeholders, which could have strengthened the robustness of the Water Stewardship

Plan.

2.4 Demonstrate the site's responsiveness and resilience to respond to

water risks

2.4.1 A plan to mitigate or adapt to identified water risks developed in

co-ordination with relevant public-sector and infrastructure agencies

shall be identified.

No evidence provided to demonstrate engagement with relevant infrastructure agencies to

mitigate water risks.

Finding No: TNR-017678

in progress

MCAC

Comment



Alliance for Water Stewardship (AWS)

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3	STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts	
3.1	Implement plan to participate positively in catchment governance.	
3.1.1	Evidence that the site has supported good catchment governance shall be identified.	⊘ Yes
Comment	On November 9, 2024, more than 20 employees from the QA department participated in a beachside trash collection activity.	
	On February 6, 2025, the Utility department conducted a catchment site tour, visiting 10 locations along nearby rivers and canals to assess the conditions. During the visit, the site observed dead fish around the Chung Run Shi area and reported the findings to the Environmental Bureau for investigation.	
	The site is planning to purchase a new drone to conduct river inspections and monitor catchment IWRA areas, including the mangrove regions. The site intends to share the collected data with local authorities and hopes to encourage more companies to join future water stewardship efforts.	
3.1.2	Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.	Q Obs.
Comment	The site monitors its wastewater discharge to ensure compliance with regulations. Test reports confirm that the concentration of pollutants is consistently below the required legal limits. Water rights are upheld in accordance with legal and regulatory frameworks, and there are no indigenous communities within the catchment area. However, this indicator refers to the water rights of others that are not part of legal and regulatory requirements. It is closely related to stakeholder-verified customary water rights mentioned in indicator 1.5.2. Due to the site just started the efforts of multi-stakeholders' engagement and consultation, the measure to respect the stakeholder-verified customary water rights will need to be verified in the next audit.	ne es
3.2	Implement system to comply with water-related legal and regulatory requirements and respect water rights.	
3.2.1	A process to verify full legal and regulatory compliance shall be implemented.	₩ No



Alliance for Water Stewardship (AWS)

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Comment

The site has established a documented procedure, an EHS organizational chart, and designated individuals responsible for ensuring compliance with all legal and regulatory requirements. Additionally, the site has presented the HALEON EHS Legal Register_TW_2025 for review, which covers various aspects of legal obligations. However, the site received a fine from Taiwan's Environmental Protection Administration (EPA) on January 15, 2025. The reasons for the penalty are due to the permit not having registered 3 devices in the permit which was issued more than 10 years ago.

The 3 missing devices in the equipment list are:

- A fine screen machine was installed on-site, but it was not listed in the permit documents.
- The T01-10 sand filter is connected to the T01-01 wastewater regulation tank via a backwash water pipeline, but this pipeline was not mentioned in the permit documents.
- Two pumping motors are installed in the T01-09 intermediate water tank, but they were not listed in the permit documents.

This is violating Article 14, Paragraph 1 of the Water Pollution Control Act. The local Environmental Bureau issued a fine due to the site not registering its wastewater plant devices properly. The site has then re-applied for the permit and is waiting for the revised permit.

The site's records indicate compliance with the current permit conditions and other legal requirements.

Finding No: TNR-017897

3.2.2 Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including



Indigenous peoples, shall be implemented.

Comment

The site explained that there are no legally defined water rights for others, including indigenous people, that apply in the area. However, the site is obligated to provide safe drinking water and toilet facilities to all workers, and it is fully compliant with these requirements.

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



Comment

The water balance target is set as 5%, and actually the site achieves 3% by installing more water meters at the correct locations so it can collect meaningful data for analysis. The site also identified that they had missed capturing the water contents in sludges. The cooling tower consumes most water, so the site is replacing them by using other technology, the chiller, which consumes less water. The site also initiates a water recovery project.

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



Comment

Water scarcity is not identified as a shared water challenge, as the site receives water from two sources: the city government and underground water extraction. However, a nearby company expressed interest in purchasing excess water from the site, but the headquarters decided not to pursue this opportunity.

The corporate target for water use efficiency is set to improve by 18%; however, the site is running 100% dry processing. The site management had escalated the concern to HQ for review. Currently the site has achieved a 2% water usage improvement by using new technology, a chiller, which uses less water. Besides that, the site is also collecting rainwater for gardening and cooling tower usage.

WSAS



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3.3.3	Legally-binding documentation, if applicable, for the re-allocation of
	tauta ata annial audtumal au annius anna atal ann ada ala all la sida atifical

water to social, cultural or environmental needs shall be identified.

Yes

Comment No legally binding documentation has been issued by local government authorities to the site

regarding the reallocation of water for social, cultural, or environmental needs.

3.4 Implement plan to achieve site water quality targets

3.4.1 Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.

Yes

Comment Water stewardship initiatives have been implemented to meet the site's water quality

objectives. In accordance with the water quality monitoring plan, the site engages a third-party laboratory for water quality testing, with test results demonstrating compliance. Additionally, an online automatic monitoring system has been installed to track COD and SS levels in the wastewater system, which is currently in the testing phase. Furthermore, the site plans to enhance its water quality monitoring efforts for underground deep well water.

3.4.2 Where water quality is a shared water challenge, continual improvement

Van

to achieve best practice for the site's effluent shall be identified and

where applicable, quantified.

Yes

Comment Site install online monitoring system to monitor COD and SS parameters of discharged water to the waterbody in 2024 Q4. After installation and calibration, data collection begins in Feb

2025. Currently the data collection is not stable and site still working on fixing the device.

3.5 Implement plan to maintain or improve the site's and/or catchment's

Important Water-Related Areas.

3.5.1 Practices set in the water stewardship plan to maintain and/or enhance

the site's Important Water-Related Areas shall be implemented.

Yes

Comment For the catchment IWRA mangrove areas, the site is currently allocating a budget to purchase a drone to monitor the mangrove condition. The site plans to share the collected data with

local authorities, which aim to encourage more companies within the catchment to work together for water stewardship efforts.

These site's initiatives are in the early stage, but the implementation evidence has been

confirmed from stakeholder interviews.

3.6 Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all

premises under the site's control.

3.6.1 Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all

water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.



Comment The site has established adequ

The site has established adequate arrangements to ensure access to safe drinking water, sanitation, and hygiene (WASH) for all workers. The site utilizes a self-assessment tool to evaluate access to water, sanitation, and hygiene (WASH) at the workplace, covering facilities

related to water supply, sanitation, and hygiene.

Separate toilets for males and females, as well as a unisex toilet, are provided. The site has also assessed the adequacy of the number of toilets for each gender to ensure compliance with legal requirements. Based on feedback from female warehouse employees, there is a request to provide a dedicated female toilet in the warehouse area, instead of the unisex option. The site is currently exploring this project for further enhancement

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3.6.2 Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that ۷es 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. Comment No evidence was observed during the audit that site is impinging on the human right to safe water and sanitation of communities through their operations. This was also confirmed during stakeholder interviews. Also, Site is providing safe drinking water to all employees as well as external visitors, contractors. 3.7 Implement plan to maintain or improve indirect water use within the catchment: 3.7.1 Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified. Yes Comment The site has identified its suppliers and service providers and they are not in the catchment. As a result, no indirect water usage. Evidence of engagement with suppliers and service providers, as well 3.7.2 as, when applicable, actions they have taken in the catchment as a Yes result of the site's engagement related to indirect water use, shall be identified. Comment The site has identified its suppliers and service providers, and they are not in the catchment. As a result, no indirect water usage. Implement plan to engage with and notify the owners of any shared 3.8 water-related infrastructure of any concerns the site may have. 3.8.1 Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified. in progress No evidence was provided to demonstrate that the site has engaged with shared Comment water-related infrastructure. There is no communication evidence outlining who was engaged, how they were involved, or the key messages conveyed (such as whether concerns, risks, or challenges related to shared infrastructure were addressed). Currently, the site monitors the situation through the website, such as the published scheduled maintenance updates in No evidence provided to demonstrate the site had engaged shared water-related infrastructure. One incidence happened in 2021 where it caused the production stoppage due to no water supplied and site was not notified beforehand. Finding No: TNR-017612

3.9 Implement actions to achieve best practice towards AWS outcomes:

continually improve towards achieving sectoral best practice having a

local/catchment, regional, or national relevance.

3.9.1 Actions towards achieving best practice, related to water governance,

as applicable, shall be implemented.





Alliance for Water Stewardship (AWS)

Audit Number: AO-001474

Comment

The site conducted research on underground water monitoring systems through government websites and found that there is no monitoring system in place around the site area. As a result, the site reached out to the Hsinchu Environmental Bureau via email on June 21, 2024, with the following proposals:

- 1. The site invited the Environmental Bureau to install an underground water monitoring system at the Haleon site.
- 2. Haleon expressed its willingness to support the government by publishing the monitoring data publicly on the Environmental Bureau's website.
- 3. Haleon also offered to provide funding for the development costs associated with uploading the data to the website.

The site also contacted Hsinchu Industrial Park Wastewater Treatment Center to discuss common water risks and challenges, but did not receive any response.

Finding No: TNR-017613

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



Comment

The site has completed the mapping of its piping system and installed water meters at appropriate locations to accurately track water usage. The water balance is maintained within a 5%. Additionally, the water content in the sludge has been identified. It was also found that water usage in the cooling tower was high, prompting the site to install a chiller in February 2024 to reduce the cooling tower's water consumption.

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



Comment

The site has installed an online monitoring system to track COD and SS levels. The device is currently in the testing phase and undergoing calibration.

3.9.4 Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.



Comment

For the catchment IWRA, the site plans to purchase a drone for monitoring river conditions. Also, the site plans to share the collected data with local authorities, which aim to encourage more companies within the catchment to work together for water stewardship efforts.

As this plan has just been established, the next audit should focus on validating the effectiveness of these measures.

Finding No: TNR-017615

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

Q Obs.

Comment

The best practices for the identified sector and catchment regarding the provision of equitable and adequate WASH services, as outlined in section 1.8.5, have been implemented. These include:

Providing sufficient safe drinking water for all workers, suppliers, and contractors who access the site.

Upgrading toilet and washroom facilities.

Offering training to workers on proper hygiene practices.

Through a workers' survey, female employees in the warehouse area have requested the installation of a female-designated toilet, as the current facilities are unisex.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-001474

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 began establishing its Water Stewardship Plan (WSP) in 2023, although no KPIs were set at that time. In 2024, the site expanded the WSP by adding more items, setting KPIs, establishing timelines, and tracking completion status. By 2025, the WSP was further enhanced with additional details, including alignment with AWS's 5 strategic outcomes, prioritization of actions, KPI setting, timelines, person-in-charge assignments, budget allocation, revenue generation, and project completion status tracking. Over the years, it is clear that the site has made continuous improvements in its Water Stewardship Plan. An example of performance against targets, such as a water balance target of 5% and an actual result of 3%. The site achieves this by installing water meters, changing water meter locations to accurately capture data, studying where the "missing waters" are, and finding out they did not capture the water contents in sludges and had identified cooling towers that use a lot of water and replaced them with new technologies using chillers that consume less water. With all the enhancements in various projects, the site achieves the target set in WSP.

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



Comment

The site recycled water at the WWTP, generating NTD 8,650 from 500 tons of water.

2025 Ongoing Projects:

The site is currently developing multiple projects, including the replacement of the cooling tower with a chiller and the implementation of a rainwater harvesting system. Revenue will be captured once these projects are finalized.

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



Comment

The site plans to purchase a drone and collaborate with the local community to monitor river conditions and the IWRA mangrove areas within the catchment area. The site also aims to share the collected data with local authorities in the hope of encouraging more companies to join the water stewardship efforts. However, since this is a new initiative, no shared value benefits have been identified yet. The next audit will need to assess the results of this initiative.

Finding No: TNR-017893

- **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

No emergency case happened last year.

The drought season causing water shortage happened a few years ago and was not impacting the site because they have the deep well.

The site has established an emergency response procedure and plan that outlines proposed preventive and corrective actions, along with measures to mitigate potential future incidents. For example, wastewater treatment plant malfunctions can use the wastewater containers to store up the production wastewater to prevent damaging the water body. If the sewage tank damage will cause the wastewater to leak or discharge before treatment. This shall lead to immediate production stoppage; purchase a few big tanks to temporarily stock up the wastewater. Chemical leakage where the site needs to report to the government if the issue is serious, competent trained employees wearing proper PPE for cleaning. If drought season happens, the site can store up water in the 3 empty tanks in the factory. If water piping and pumps damaged or purify water system malfunction, the site can reserve spare CEDI units, purchase water from tankers, stored up spare RO pumps for repairs, etc.

Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.

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

Q Obs.

Comment

The site has not demonstrated effective stakeholder consultation or engagement. While initial outreach was made to the local environmental bureau and the wastewater treatment service provider, no responses were received. Only the City Council for Labor Relations had responded two weeks before the audit and had participated in the interview session during the onsite audit. The City Council Officer highly praised the site's water stewardship initiative and commented it goes beyond the country's laws. The officer is also looking forward to the site having a greater contribution, sharing the data with the government and influencing more companies to join the efforts.

- 4.4 Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.
- **4.4.1** The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.



Comment

The site has updated the Water Stewardship Plan (WSP) based on relevant information and lessons learned from evaluations in previous years. This is reflected in the continuous improvements observed in the 2023, 2024, and 2025 WSP versions.



Alliance for Water Stewardship (AWS)

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5	STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts
5.1	Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.
5.1.1	The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.
Comment	The company has a global website. The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations, has been posted on Google Maps.
	https://maps.app.goo.gl/hs8iGqCs1VqmJFbU7 (under the section 'From the Owner') https://www.haleon.com/our-impact/environment
5.2	Communicate the water stewardship plan with relevant stakeholders.
5.2.1	The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.
Comment	The site provided presentation materials to communicate water stewardship information to employees. A total of 120 employees participated in an assessment that included questions related to catchment information and the Alliance for Water Stewardship (AWS) program. Participation was encouraged through the distribution of complimentary mooncakes as an incentive. However, the site is lacking in engaging broader group of external stakeholders. <i>Finding No: TNR-017895</i>
5.3	Disclose annual site water stewardship summary, including: the relevant information about the site's annual water stewardship performance and results against the site's targets.
5.3.1	A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a Yes minimum.
Comment	The site publicly disclosed its sustainable water management performance via a Google post link. According to the report, the Hsinchu factory, which sources water from both tap and well water, recorded a total water withdrawal of approximately 29,747 m³ in 2024—down from 33,228 m³ in 2023. This represents a reduction of approximately 10.5% in annual water consumption, demonstrating progress in sustainable water use practices. Other disclosures, such as activities in IWRA mangrove areas cleaning, river patrol and reporting to the Environmental Bureau when seeing pollution. Comparing 2023 (17,516 m³) to 2024 (12,149 m³), the wastewater discharged had reduced by 30.6%. For water recovery, 2023 (5,208 m³, 16%) to 2024 (5,313 m³, 18%) has a 2% improvement.
	https://posts.gle/NZnSUS
5.4	Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges;engagement with stakeholders; and co-ordination with public-sector agencies.
5.4.1	The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.

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Comment The site disclosed the shared water-related challenges and its efforts to address them.

Disclosure of Shared Water Challenges
Published on Google: Link
https://posts.gle/vVPxBD

i. Water Issues Caused by Climate Change

Over the past decade, Taiwan has experienced droughts every 3 to 5 years, with a particularly severe one occurring in 2021. More recently, from 2023 to 2024, climate change has contributed to short-term, intense rainfall in certain areas, resulting in localized flooding. The Hsinchu facility, located at an elevation of 50 meters, typically receives less rainfall and is equipped with well-designed drainage systems, minimizing the risk of flooding. In response to drought conditions, the site has taken steps to reduce water consumption, increase water recycling, and explore alternative water sources.

ii. Basin Water Pollution Challenges

The Xinfeng-Hukou area in Hsinchu County is relatively remote, with lower population density and less economic activity than other regions. As a result, it has received less governmental attention and fewer resources. There is currently no publicly available groundwater quality data, and basin water pollution has not been a focus of government policy. While data on domestic sewage is publicly disclosed, no additional resources have been allocated to address broader water quality issues. In 2020, concerns were raised about pollution in a nearby river, prompting calls from the public and local representatives for improvement. However, limited progress has been made over the past four years. The site has recognized this as a key area for multi-stakeholder collaboration.

Finding No: TNR-017896

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

Q Obs.

support public-sector agencies shall be identified

Based on the information provided, there is no evidence indicating that the site engaged in activities to support public-sector agencies

Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.

5.5.1 Any site water-related compliance violations and associated corrections shall be disclosed.

Yes

Comment

Comment

5.5

Site had disclosed recent wastewater treatment plant permit violation in website. https://posts.gle/RUubKq

Factory Water Management Compliance Status

In 2024, the factory was fined TWD 189,000 by the Hsinchu County Government due to discrepancies between the approved water management documentation and the actual on-site conditions. Specifically, certain equipment—such as the fine screen machine, backwash water pipeline, and pumping motor—was not included in the original permit documents. However, there were no water-related violations identified that posed significant risks or threats to human health or the ecosystem. The official notice is shown in the attached image. In response, the factory has engaged a consulting firm to review and update its licensing documentation to prevent similar issues in the future.

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



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Comment

The site received a notice of violation and a compound fine from the Hsinchu County Government on June 13, 2024. In response, the site submitted its initial remediation application through the open online system on August 21, 2024. The Hsinchu City Council accepted the case on September 3, 2024, marking the first formal application.

As additional time was required to complete necessary documentation, conduct laboratory tests, and fulfill other technical requirements, the site requested an extension. The government approved this extension on December 17, 2024. The site is expecting to get the updated permit in May 2025.

The site had disclosed recent wastewater treatment plant permit violation and its corrective actions on website: https://posts.gle/RUubKq

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

Yes

relevant public agencies and disclosed.

Comment

A site representative recently reported an incident to the local Environmental Bureau after observing dead fish in a nearby canal during routine river and canal patrols conducted as part of the site's water stewardship efforts. Following an on-site inspection, the Environmental Bureau determined that the fish mortality was linked to a nearby farmer's fishpond. Water quality testing results indicated no signs of pollution in the canal.



Alliance for Water Stewardship (AWS)

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Photographic Evidence from Audit





Female toilets.jpg



Underground water well.jpg



Alliance for Water Stewardship (AWS)

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Drinking water stations.jpg



Canteen.jpg



Male toilets.jpg



WSAS
2 Quality StreetNorth Berwick, EH39 4HW, UNITED KINGDOM



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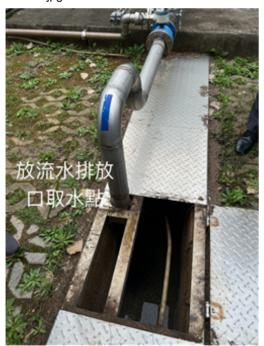
Drinking water stations.jpg



Water discharged (2).jpg



WWTP.jpg



Discharged water sampling collection point.jpg

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Recycling collection.jpg



City water meter.jpg



Alliance for Water Stewardship (AWS)

Audit Number: AO-001474



Wastewater meter.jpg



Wastewater sludge compressor.jpg



Cooling tower.jpg

WSAS



Alliance for Water Stewardship (AWS)

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Water discharged.jpg

Previous Findings

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

V/A

Comment N/A for initial audit.