CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001387

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

SITE DETAILS

Site: **Ecolab - Taicang**
Address: No. 7, Middle Xiexin Road, Taicang Port, Development Zone, Taicang, Jiangsu, P.R. CHINA
Contact Person: Laura Kowalski
AWS Reference Number: AWS-000127
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Platinum
Date of certification decision: 2025-Apr-04
Validity of certificate: 2028-Apr-03

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Re-Certification Audit
Audit Start Date: 2024-Nov-25
Audit End Date: 2024-Nov-27
Lead Auditor: Lingyun Yu

Audit team participants:
Lorry Long

Site Participants:
Zhou Jian, Department Head HSE
Chang Hong, Factory EHS Manager
Sun Jian, EHS Engineer
Zhong Weidong, Factory Director
Pei Changhui, Manager - Human Resource
Shi Yao, EHS Engineer
Wang Fujun, Quality manager
Jiang Hailin, Production manager

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001387

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

ADDITIONAL INFO

Summary of Audit Findings: A total of 8 findings were raised during the certification audit, 1 major non-conformity, and 7 minor non-conformities. The major non-conformities were of sufficient concern to warrant the categorization of the non-conformity as major and related to IMPORTANT WATER-RELATED AREAS.

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 24/12/2024.

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 24/02/2025.

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

The audit team recommends certification of Ecolab (Taicang) Technology Co. Ltd. at Platinum level pending approval of the corrective actions plan and closure of the major non-conformities.

Scope of Assessment: The scope of services covers the recertification audit for assessing conformity of Ecolab (Taicang) Technology Co. Ltd. against the AWS International Water Stewardship Standard Version 2.

Ecolab (Taicang) Technology Co., Ltd. is situated in the Taicang Port Economic and Development Zone, Taicang City, Jiangsu Province, China. It is a clean agent manufacturer, producing variety of food contact clean agent, hand wash or disinfector under the brand of Ecolab. The facility spans an area of 166,426 cubic meters and currently employs approximately 130 staff members, with an annual production capacity of approximately 160,000 tons. The company utilizes municipal tap water for domestic use and a combination of municipal tap water and recycled wastewater for production purposes. Industrial wastewater is zero discharged. It processed through an on-site treatment plant and then reused and not discharged into the environment. Domestic wastewater is discharged into the local municipal network and then treated by municipal WWTP. A portion of the rainwater is treated by a water treatment facility and reused for cooling tower water replenishment. The remaining rainwater is directed into the municipal rainwater pipeline, eventually flowing into the Nanheng River.

The audit was conducted onsite on November 25-27, 2024.
The audit activities included the site visit covering production lines, wastewater treatment plant, chemical warehouse and IWRA, stakeholder interviews, and documents review.

SCORE

84.00

FINDINGS

NUMBER OF FINDINGS PER LEVEL

Minor	7
Major	1

FINDING DETAILS

Finding No:	TNR-014549
Checklist Item No:	1.3.5
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Nov-26
Checklist item:	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.
Findings:	The map of potential pollution sources does not clearly indicate the coverage area of each potential pollution source.
Corrective action:	The site plans to update the map of potential pollution sources and clearly define the coverage area of each potential pollution source.

Finding No:	TNR-014550
Checklist Item No:	1.4.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Nov-26
Checklist item:	The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.
Findings:	The site has not fully identified the water usage of all outsourced services, such as failing to confirm and quantify the water usage information of the catering service provider.
Corrective action:	The site plans to update the list of outsourced services and conduct a new survey on the water usage information of all outsourced services.

Finding No:	TNR-014551
Checklist Item No:	1.5.4
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Nov-26
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:	The site primarily obtains water quality information in the basin by consulting official annual reports, such as the Taihu Basin Health Report and the Jiangsu Province Ecological Environment Condition Report. However, the site does not promptly collect the latest information published by the authorities to identify the most recent water quality information within the catchment.
Corrective action:	The site plans to update its management processes, including updating the catchment survey report at least once a year, and obtaining relevant information on catchment water in a timely manner, including water quality information within the catchment.

Finding No:	TNR-014552
Checklist Item No:	1.8.4
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Nov-26
Checklist item:	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.
Findings:	The site has not yet fully identified the best practices related to the maintenance of important water-related areas within the relevant catchment area.
Corrective action:	The site plans to identify the best practices for site maintenance of Important Water-Related Areas within the catchment through means such as catchment information surveys and stakeholder communication.

Finding No:	TNR-014650
Checklist Item No:	3.5.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Nov-26
Checklist item:	Practices set in the water stewardship plan to maintain and/or enhance the site’s Important Water-Related Areas shall be implemented.
Findings:	The site did not implement the practice to maintain and enhance the site's IWRAs in 2023 and 2024.
Corrective action:	The site would implement practice to maintain and enhance the site's IWRAs.

Finding No:	TNR-014676
Checklist Item No:	3.9.4
Status:	Closed
Finding level:	Major
Due date:	2025-Feb-24
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 not implemented the actions toward achieving best practice, related to targets in terms of the site's maintenance of IWRS.
Corrective action:	The site would implement actions toward achieving best practice in the site's IWRAs.

Finding No:	TNR-014679
Checklist Item No:	4.1.3
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Dec-24
Checklist item:	The shared value benefits in the catchment shall be identified and where applicable, quantified.
Findings:	The site did not quantify the shared value benefits in the catchment where applicable, such as the value creation of the activites .
Corrective action:	The site would quantify the shared value benefits in the catchment.

Finding No:	TNR-014680
Checklist Item No:	4.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Dec-24
Checklist item:	Consultation efforts with stakeholders on the site’s water stewardship performance shall be identified.
Findings:	The site did not directly provide documents or links on water management performance in the relevant party survey questionnaire, so feedback from stakeholders did not fully reflect the evaluation of water management performance at the site.
Corrective action:	The site would refresh the relevant party survey questionnaire according to the requirements.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001387

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

Report Details

Report	Value
Report prepared by	Lingyun Yu
Report approved by	S. M. Leong
Report approved on (Date)	04 April 2025

Surveillance

Proposed date for next audit
2025-Nov-26

Stakeholder Announcements

Date of publication	Location
23/09/2024	https://a4ws.org/wp-content/uploads/2024/10/AWS-000753_Ecolab-Santiago-Chile_StakeholderAnnouncement_Dec2024_V3.0.pdf
23/09/2024	https://www.tuv.com/content-media-files/greater-china/about-us/downloads/terms-and-conditions-and-certification-regulations/aws-000127_ecolab-(taicang)-technology-co.-ltd._stakeholderannouncement_monthyy_v3.0-billingual.pdf
23/09/2024	Posted onsite

Catchment Information

Catchment Information

The plant is located at the Taicang Port Development Zone, part of the Taihu Basin.
The Taihu Basin, also known as Lake Tai Basin, is a significant geographical and hydrological region located in the eastern part of China, primarily within the provinces of Jiangsu and Zhejiang. The basin encompasses the vast Taihu Lake , one of China's third-largest freshwater lakes, and a critical water resource for the region.

Geographical Significance:
The Taihu Basin covers an area of approximately 36,900 square kilometers and is renowned for its flat terrain, fertile land, and rich natural resources. It is a vital agricultural area, supporting the cultivation of rice, tea, and a variety of fruits and vegetables. The region is also known for its scenic beauty, with numerous water towns and historical sites that attract tourists from around the world.

Hydrology:
Taihu Lake, the centerpiece of the basin, serves as a natural reservoir that regulates water levels, provides irrigation water, and supports aquatic life. The lake is fed by numerous rivers and streams, including the Yangtze River, and is connected to the East China Sea through the Huangpu River system. The basin's water management is crucial for flood control, water supply, and ecological balance.

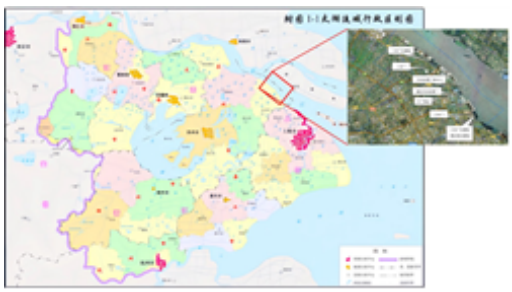
Ecology and Environment:
The Taihu Basin is home to a diverse ecosystem, with the lake itself being a critical habitat for various species of fish and migratory birds. However, the region has faced environmental challenges such as eutrophication due to agricultural runoff and industrial pollution. Conservation efforts are underway to restore the lake's ecosystem and improve water quality.

Economic Importance:
The basin is economically vital, with a strong focus on industries like textiles, electronics, and manufacturing. The region's proximity to Shanghai and other major cities has contributed to its rapid development. It is also a hub for high-tech industries and research institutions.

Cultural and Historical Context:
The Taihu Basin has a rich cultural heritage, with a history dating back thousands of years. The region has been a cradle of Chinese civilization, influencing art, literature, and philosophy. The water towns around Taihu Lake, such as Suzhou and Wuxi, are famous for their classical gardens and traditional architecture.

Challenges and Management:
The basin faces challenges such as water scarcity, pollution, and the impacts of climate change. To address these, integrated water resource management strategies have been implemented, including water conservation, pollution control, and ecological restoration projects.

In summary, the Taihu Basin is a region of great ecological, economic, and cultural importance. Its sustainable management is essential for ensuring water security, preserving the environment, and supporting the region's development.

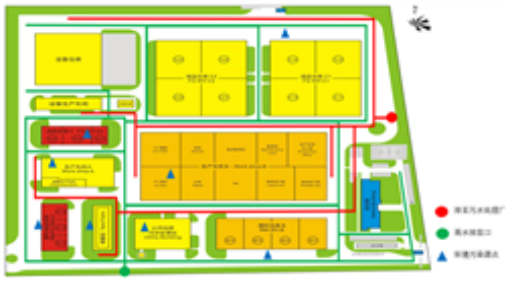


Catchment boundary.jpg

Client Description and Site Details

Client/Site Background

Ecolab (Taicang) Technology Co., Ltd. is situated in the Taicang Port Economic and Development Zone, Taicang City, Jiangsu Province, China. It is a clean agent manufacturer, producing variety of food contact clean agent, hand wash or disinfector under the brand of Ecolab. The facility spans an area of 166,426 cubic meters and currently employs approximately 130 staff members, with an annual production capacity of approximately 160,000 tons. The company utilizes municipal tap water for domestic use and a combination of municipal tap water and recycled wastewater for production purposes. Industrial wastewater is zero discharged. It processed through an on-site treatment plant and then reused and not discharged into the environment. Domestic wastewater is discharged into the local municipal network and then treated by municipal WWTP. A portion of the rainwater is treated by a water treatment facility and reused for cooling tower water replenishment. The remaining rainwater is directed into the municipal rainwater pipeline, eventually flowing into the Nanheng River.



Site boundary.png

Summary of Shared Water Challenges

Summary of Shared Water Challenges

The site conducted questionnaire surveys and on-site visits with stakeholders to solicit their opinions on the shared water challenge and summarized the attention of various stakeholders to water-related topics in the catchment.

The Catchment Background Report identifies the shared challenges within the catchment, including:

1. Deterioration of water quality in the basin, Level 1
2. Salty tide of Yangtse River, Level 2
3. Water resource reduction, Level 3
4. Extreme weather, such as drought, flood, etc. Level 4

Meanwhile, based on the analysis of relevance/rationale for stakeholders and relevance/rationale for the site, the site has prioritized the shared challenges. The risk level is from low (Level 4) to high (Level 1). The level of risk is determined by attention, impact, and outcome.

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.*	No
Comment	Due to the water sources and the final wastewater discharge points being controlled by water supply and wastewater treatment infrastructure, which are located at a considerable distance from the site, and constrained by the audit schedule, the audit team is unable to visit these external areas.	
0.1.1.1	*The site(s) occupy one catchment OR an exception has been granted.*	Yes
Comment	The site occupies one 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.	
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 or service range, and the main market structures.	

1	STEP 1: GATHER AND UNDERSTAND	
1.1	*Gather information to define the site's physical scope for water stewardship purposes, including: its operational boundaries; the water sources from which the site draws; the locations to which the site returns its discharges; and the catchment(s) that the site affect(s) and upon which it is reliant.*	
1.1.1	*The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:* *- Site boundaries;* *- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization;* *- Any water sources providing water to the site that are owned or managed by the site or its parent organization;* *- Water service provider (if applicable) and its ultimate water source;* *- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;* *- Catchment(s) that the site affect(s) and is reliant upon for water.*	✓ Yes
Comment	The site draws a site boundary map, which identifies the site boundary information and the layout within the site. Water-related infrastructure like municipal wastewater treatment plants, the municipal water plant, the wastewater receiving water body, and the ultimate water sources are also identified in the map and the catchment report. In Ecolab, only rainwater and domestic wastewater are discharged. The discharge points have been marked in the layout. All industrial wastewater is reused after on-site ETP treatment. There is no industrial wastewater outlet on the site. The site has developed a site and catchment background report. In this report, it contains the following content: • Map of site boundaries with the source of water supply and discharge points of domestic wastewater and rainwater. • Rainwater ultimate receiving water body (Nanheng River). • Map of water-related infrastructures at the site such as pipeline, and wastewater treatment plant. • Map of the water plant (Taicang City Second Water Plant Co., Ltd.) and its ultimate water source (Yangtze River), municipal WWTP (Taicang Gangcheng sewage treatment plant), and its ultimate receiving water body (Yangtze River). • Map of the catchment that the site affects and is reliant upon for water.	
1.2	*Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.*	
1.2.1	*Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:* *- Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people;* *- Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies;* *- Provide evidence of stakeholder consultation on water-related interests and challenges;* *- Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups;* *- Identify the degree of stakeholder engagement based on their level of interest and influence.*	✓ Yes

Comment	Ecolab has developed the AWS System Management Manual, ECTC-QEM-AWS-001, which clarifies the identification, management, and communication of stakeholders. Ecolab has identified stakeholders such as the government, employees, NGOs, suppliers, infrastructures, and surrounding companies, and has established diversified communication channels with different stakeholders. For example, participating in government meetings, supplier audits, visits to surrounding companies, community activities, email exchanges, questionnaires, employee seminars, satisfaction surveys, etc.	
1.2.2	*Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.*	Yes
Comment	The site has developed an analysis table of stakeholders, and the degree of influence between the site and stakeholders has been identified for each stakeholder.	
1.3	*Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.*	
1.3.1	*Existing water-related incident response plans shall be identified.*	Yes
Comment	The site has developed a series of water-related incident response plans that include multiple scenarios. The scenarios include emergency plans for chemical spills, emergency plans for waste pollution, water pollution incidents, soil pollution, Municipal Water Interruption, and Natural disaster emergency plans (rainstorm, earthquake, typhoon).	
1.3.2	*Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped*	Yes
Comment	The site conducts an annual water balance analysis and draws a water balance diagram, which identifies water inflow, drainage, production water, domestic water, reuse water, etc. The site tracks the readings of each water meter, analyzes and evaluates its water consumption daily, and carries out the water balance analysis every year. The input, loss, storage, and output of water are quantified. The latest update date for the water balance analysis chart is January 2024.	
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.*	Yes
Comment	The site conducts an annual water balance analysis and draws a water balance diagram, which identifies water inflow, drainage, production water, domestic water, reuse water, etc. The site tracks the readings of each water meter, analyzes and evaluates its water consumption daily, and carries out the water balance analysis every year. The input, loss, storage, and output of water are quantified. The latest update date for the water balance analysis chart is January 2024. Therefore, the annual variance can be identified. The difference of year 2023 is less than 1%.	
1.3.4	*Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.*	Yes

Comment

The site does not discharge any industrial wastewater; the production wastewater, after going through on-site wastewater treatment processes such as triple-effect evaporation and biological treatment, is entirely reused for production.
The site has developed a water quality monitoring inventory, which includes monitoring requirements for sewage, incoming water, drinking water, recycled water, and pure water for production, including monitoring points, monitoring methods, pollutant names, monitoring frequency, and control standards. For example:
- Onsite wastewater treatment system
• The internal laboratory conducts daily monitoring of the water quality of the wastewater treatment process and treated wastewater to ensure the proper operation of the wastewater treatment system.
- Domestic wastewater
• Domestic wastewater is tested by an external qualified laboratory once a year
- Rainwater
• The site has installed an online monitoring device at the rainwater outlet to measure PH and COD in real-time
• The site entrusts a third-party laboratory to test the water quality of rainwater outlets twice a year.
- Environmental water quality
• There are a total of 8 groundwater and 8 soil monitoring points in the site area, which are monitored once a year
• The site's internal laboratory annually monitors the water quality of the adjacent river, Nanheng River, which is the receiving water body for the site's rainwater. The monitoring items include Chemical Oxygen Demand (COD), ammonia nitrogen, total phosphorus, and pH. The test records have been provided for review.

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

No

Comment

The site has drawn a diagram of the stormwater and wastewater pipeline network, identifying the wastewater conveyance pipelines. The site has also created a map of potential pollution sources, marking the locations of potential pollution sources, such as the chemical warehouse and temporary chemical storage areas.

Finding No: TNR-014549

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

Yes

Comment

As per the site tour, document review, and interview, no IWRA is within the site.

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

Ecolab has identified water-related costs, including water consumption costs, wastewater treatment facility operating costs, water quality monitoring costs, sludge disposal costs, water management costs, etc.
The water-related revenues included: Income from frugal projects and the social, cultural, environmental, and economic water-related value generated by the site.

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

Yes

Comment

The site installs 11 water purification facilities in workshops and office areas, providing employees with free drinking water. The water purification facilities were regularly maintained. The site also provides sufficient toilets to workers, and regular cleaning was conducted. Necessary equipment like handwash and tissue were also provided.
The site performed the assessment of the WASH level as per WBCSD. The result is satisfied.

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 screened and identified the suppliers/service providers that accounted for 85 percent of the raw material purchase weight (20 suppliers/service providers were included), and then sent the questionnaires to investigate their indirect water consumption (A total of 14 suppliers/service providers provided feedback). And through the investigation, the site collected water consumption information from suppliers. Moreover, the site also evaluates the risk of indirect water based on the supplier's water usage, water source, wastewater quality, environmental violation records, WWF water risk screening results, etc.

1.4.2 *The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.* ✗ No

Comment: The site also collects the water consumption of its outsourced services such as hazardous waste and non-hazardous waste disposal units through questionnaires.

Finding No: TNR-014550

1.4.3 *Advanced Indicator*
The embedded water use of primary inputs in catchment(s) of origin shall be quantified. ✓ Yes

Comment: The site identified and screened the suppliers/service providers that accounted for 85 percent of the raw material purchase weight (20 suppliers/service .providers were included; a total of 14 suppliers/service providers provided feedback). and through the investigation questionnaires. The site analyzed the water-related risk level of suppliers by the intensity of. water consumption, dependent water sources, water management, environmental violation records, and WWF water risk screening results.
Via the data of suppliers' total water consumption, production volume, and production volume proportion, the site could calculate the embedded water use of the main suppliers.
The total annual water consumption of the surveyed suppliers is approximately 3 million tons.
The embedded water use of materials can be calculated based on the water consumption data from suppliers and the proportion of raw materials purchased by the site.

Score: 7

1.5 *Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH*

1.5.1 *Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.* ✓ Yes

Comment: Water governance initiatives were identified in the Catchment Background Survey Report by the site. The initiatives included national, provincial, and local levels, including the catchment development plan, industrial development plan, environmental and ecological conservation plan, etc.

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

Comment: Applicable water-related legal and regulatory requirements were collected and listed. The site checks and updates the list annually.

1.5.3	*The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.*	Yes
Comment	The Catchment Background Survey Report provides a detailed analysis of the water balance for Taicang City, Suzhou City, and the Taihu catchment. The water balance in the catchment is analyzed based on the rainfall (mm), precipitation (m3), surface water resources (m3), groundwater resources(m3), water diversion (m3), displacement(m3), storage(m3), consumption(m3), total water supply (m3) and total water consumption(m3). All the data is collected from government websites and published reports. The site has collected water balance data for the catchment from 2019 to 2023, and the annual differences and trends are available.	
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.*	No
Comment	The site has identified the water quality change trends in the important water function areas of the Taihu Basin from 2007 to 2018, the annual water quality information of important water bodies in Taicang City for the year 2020, as well as the water quality status and change trends of the Yangtze River water source from 2018 to 2021. ***Finding No: TNR-014551***	
1.5.5	*Important Water-Related Areas shall be identified, and where appropriate, mapped,and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.*	Yes
Comment	The Catchment Background Survey Report lists the Important Water-Related Areas of the catchment. The Important Water-Related Areas are collected from government-published documents, including 'Ecological protection red line of Jiangsu Province', and' Ecological environment zoning of three lines and one list' and consultation with stakeholder. The status of the IWRAs are collected from the management authorities.	
1.5.6	*Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.*	Yes
Comment	The Catchment Background Survey Report lists the existing and planned water-related infrastructure including water supply, flood control, and drainage, wastewater treatment, emergency response at provincial, catchment, and city levels, and water-related objectives. Based on the available information, the water-related infrastructure in the catchment is relatively good.	
1.5.7	*The adequacy of available WASH services within the catchment shall be identified.*	Yes
Comment	Taicang City has 2 municipal water plants, and 2 water sources, the centralized water supply rate and public water supply rate reach 100%. It indicates that the WASH services in Taicang City are adequate.	
1.5.8	*Advanced Indicator* *Efforts by the site to support and undertake catchment level water-related data collection shall be identified.*	Yes
Comment	The site's internal laboratory annually monitors the water quality of the adjacent river, Nanheng River, which is the receiving water body for the site's rainwater. The monitoring items include Chemical Oxygen Demand (COD), ammonia nitrogen, total phosphorus, and pH. The test records have been provided for review.	
Score	4	

1.5.9	*Advanced Indicator* *The adequacy of WASH provision within the catchments of origin of primary inputs shall be identified.*	Yes
Comment	By searching the Statistic Yearbook of different provinces, Ecolab has identified adequacy of WASH provision within the catchments of origin of primary inputs including the coverage of safe drinking water supply, the coverage of wastewater treatment, the rate of security disposal of municipal solid waste, and public facilities and environmental sanitation in urban districts.	
Score	4	
1.6	*Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.*	
1.6.1	*Shared water challenges shall be identified and prioritized from the information gathered.*	Yes
Comment	The site conducted questionnaire surveys and on-site visits with stakeholders to solicit their opinions on the shared water challenge and summarized the attention of various stakeholders to water-related topics in the catchment. The Catchment Background Report identifies the shared challenges within the catchment, including: 1. Deterioration of water quality in the basin, Level 1 2. Salty tide of Yangtse River, Level 2 3. Water resource reduction, Level 3 4. Extreme weather, such as drought, flood, etc. Level 4 Meanwhile, based on the analysis of relevance/rationale for stakeholders and relevance/rationale for the site, the site has prioritized the shared challenges. The risk level is from low (Level 4) to high (Level 1). The level of risk is determined by attention, impact, and outcome.	
1.6.2	*Initiatives to address shared water challenges shall be identified.*	Yes
Comment	In response to the aforementioned shared water challenges, the site has identified measures to address them, including public initiatives and the site's action plan.	
1.6.3	*Advanced Indicator* *Future water issues shall be identified, including anticipated impacts and trends*	Yes
Comment	Ecolab has collected information on future water issues, anticipated impacts, and trends in the Special Emergency Response. It states that the water resources in the catchment can fully meet the city-wide water supply needs.	
Score	3	
1.6.4	*Advanced Indicator* *Potential water-related social impacts from the site shall be identified, resulting in a social impact assessment with a particular focus on water.*	N/A
Comment	The site does not perform this indicator.	
1.7	*Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6.*	
1.7.1	*Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.*	Yes

Comment	The site identified its water risks and summarized them in a spreadsheet. They categorized the water risk into physical risk, regulatory risk, and reputation risk. The spreadsheet that lists the water risks faced by the site. The site scored the frequency of the risk and severity of the impact and then multiplied two scores to evaluate the level of the risk. The potential costs, business impact, and control measures are also included in the spreadsheet.	
1.7.2	*Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.*	Yes
Comment	The site has identified 28 major business opportunities considering how the site may participate. The potential value includes cost saving, image enhancement, sustainability of enterprise operation, and customer trust, and ranked their importance.	
1.8	*Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.*	
1.8.1	*Relevant catchment best practice for water governance shall be identified.*	Yes
Comment	Ecolab has identified relevant catchment best practices for water governance including: • Implement AWS management on the site and carry out AWS certification; • Prepare environmental emergency response plans, and conduct regular drills • A comprehensive water stewardship plan that is routinely reviewed and updated; • Training of employees on the principles of water stewardship; • Engaging with peer organizations and stakeholders to promote water stewardship	
1.8.2	*Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.*	Yes
Comment	The site has identified relevant sector and/or catchment best practices for water balance including: • Rainwater recovery • Refer to the advanced indicators (industry-leading levels) regarding water density in the water quota standards for the industry within or outside the catchment area. • All industrial waste is recycled for production after being treated by the on-site wastewater treatment system	
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 relevant sector and/or catchment best practice for water quality, such as: • Test the rainwater regularly to monitor whether it is polluted • Industrial wastewater is reused after treatment without discharge • Formulate internal control standards stricter than discharge permit for domestic wastewater	
1.8.4	*Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.*	No
Comment	The site has not yet fully identified the best practices related to the maintenance of important water-related areas within the relevant catchment area. ***Finding No: TNR-014552***	
1.8.5	*Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.*	Yes

Comment	The site has identified relevant sector and/or catchment best practices for site provision of equitable and adequate WASH services including: • WBCSD self-assessment tool • Voluntary section of GBZ 1-2010 Hygienic standards for the design of industrial enterprises

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.*	✓ Yes
Comment	A water stewardship commitment to follow all the AWS core criteria has been signed by the General Manager of Ecolab. The commitment includes all the necessary element and has been displayed on Ecolab's website.	
2.1.2	*Advanced Indicator* *A statement that explicitly covers all requirements set out in Indicator 2.1.1 and is signed by the organization's senior-most executive or governance body and publicly disclosed shall be identified.*	✓ Yes
Comment	A water stewardship commitment to follow all the AWS core criteria has been signed by the General Manager of Ecolab. The commitment includes all the necessary element and has been displayed on Ecolab's website. https://www.ecolab.com.cn/news/2021/local/enterprise-water-management-announcement	
Score	1	
2.2	*Develop and document a process to achieve and maintain legal and regulatory compliance.*	
2.2.1	*The system to maintain compliance obligations for water and wastewater management shall be identified, including:* *- Identification of responsible persons/positions within facility organizational structure* *- Process for submissions to regulatory agencies.*	✓ Yes
Comment	Ecolab established water management organizational structure and members of the compliance responsible team. Ecolab has also established a procedure to ensure the operation of Ecolab meet the provisions of relevant laws, regulations and other requirements, ECTC-SOP-SHE-033.	
2.3	*Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.*	
2.3.1	*A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.*	✓ Yes

Comment	Ecolab has developed a water stewardship strategy and announced it on Ecolab's website. The strategy expounds Ecolab's long-term plan for water stewardship in terms of standardized management, corporate social responsibility and implementation of best practices, including: Achieve important outcomes for water resources, namely a good water management system, sustainable water balance, good water quality, and the health of important water-related areas, as well as the ability to access safe water and sanitation (WASH) facilities. Comply with all legal and regulatory requirements and respect the rights related to water, as well as national and international treaties concerning water. Communicate and cooperate with stakeholders in an open and transparent manner, actively coordinate with public sector institutions, and support the government's efforts in water resource protection, supporting water-related planning and implementing water-related policies. Continuously improving and perfecting water management actions and plans and disclose progress. Ensure that there is sufficient organizational capacity to successfully implement the AWS International Sustainable Water Management Standard.
2.3.2	*A water stewardship plan shall be identified, including for each target:* *- How it will be measured and monitored* *- Actions to achieve and maintain (or exceed) it* *- Planned timeframes to achieve it* *- Financial budgets allocated for actions* *- Positions of persons responsible for actions and achieving targets* *- Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.* Yes
Comment	Ecolab has developed a Water Stewardship Plan (Year 2023 and Year 2024), which specifies targets, required actions, measurement, status, effectiveness evaluation, accountable and deadline, etc. The Water Stewardship Plan is associated with five main outcomes of AWS, including good water governance, sustainable water balance, good water quality status, IWRA and WASH, such as: • Prepare and regularly update the sustainable water stewardship procedure to standardize the water management process of the plant • Improve staff's water management awareness through training and posting water-saving signs • Optimize the production process, reduce the water consumption per unit product • Collect and filter rainwater, and use it for cooling tower makeup, mechanical seal cooling, production processes, etc.. •Classify wastewater of different concentrations to optimize water treatment operational efficiency • Develop a water quality testing plan to ensure that the quality of discharged wastewater 100% meets the internal control standards • Entrust a third-party laboratory to conduct testing of groundwater and soil on the site • Update drinking water facilities, 100% change bottled water to the direct drinking water dispenser for employees, and regularly maintain the facilities • Use WBCSD to evaluate the WASH of the site and keep the result reach 90%
2.3.3	*Advanced Indicator* *The site's partnership/water stewardship activities with other sites within the same catchment (which may or may not be under the same organisational ownership) shall be identified and described.* Yes

Comment	On April 26, 2024, Ecolab teamed up with One Planet Nature Foundation, Taicang Wetland Protection and Management Station, local government, foreign enterprises, public welfare organizations, and industry experts to carry out the "Wetland+" Multi-Party Network Co-Creation Meeting in Taicang Jincang Lake Wetland Park, Ecolab shared the practice and achievements in sustainable water management. In 2022, Ecolab share the best practice of water management with one brother company in Nanjing and help them obtain AWS certificate, and continuously shared the AWS practices in 2023 and 2024. Ecolab also shared good practice of water saving and wastewater treatment during online meeting every three months to with brother companies (3 in the same catchment and 2 in another catchments). The training materials and records were provided for review. Ecolab shared best practices in sustainable water management with surrounding companies in the same catchment by WeChat regularly.
Score	4

2.3.4	*Advanced Indicator* *The site's partnership/water stewardship activities with other sites in another catchment(s) (either under same corporate structure or with another corporate site) shall be identified.*	Yes
Comment	Ecolab also shared good practice of water saving and wastewater treatment during online meeting every three months to with brother companies (3 in the same catchment and 2 in another catchments). The training materials and records were provided for review.	
Score	4	

2.3.5	*Advanced Indicator* *Stakeholder consensus shall be sought on the site's water stewardship plan. Consensus should be achieved on at least one target. A list of targets that have consensus and in which stakeholders are involved shall be identified.*	N/A
Comment	The site does not perform this indicator.	

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.*	Yes
Comment	Ecolab has identified its water risks covering water governance, water supply and extreme weather effects, and corresponding strategies to mitigate water risks are developed. The site developed these via study of the government's water-related plan or consultation with the government. Ecolab has coordinated with the management committee of the industrial park where it is located to develop an emergency plan for environmental emergencies, water related topics were also included, and the plan was registered with the local environmental protection department with the registration number of 3205852022/024-L.	

2.4.2	*Advanced Indicator* *A plan to mitigate or adapt to water risks associated with climate change projections developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.*	N/A
Comment	The site does not perform this indicator.	

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	1. Ecolab actively cooperates with the government supervision department to conduct supervisory inspections and visits. 2. Ecolab has established a procedure to ensure the operation of Ecolab to meet the provisions of relevant laws, regulations and other requirements. And conducts compliance evaluation on laws and regulations every year and keeps records. 3. Ecolab monitors the water quality of the Nanheng River (which the rainwater discharge to) next to the facility. The site monitors the water quality of the discharge point, downstream and upstream of the Nanheng River by themselves quarterly (test parameters include COD, TP, NH3-N, pH), in accordance with the national standard: Surface Water Environmental Quality Standard GB 3838-2002.	
3.1.2	*Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.*	Yes
Comment	Ecolab regularly monitors its domestic wastewater. By checking the test report of the site, all the concentration of pollutants is lower than the requirements of relevant laws. In addition, all industrial wastewater from the site is reused, and the site does not discharge industrial wastewater. The water rights are respected under legal and regulatory mechanisms, and there is no indigenous people in the catchment area.	
3.1.3	*Advanced Indicator* *Evidence of improvements in water governance capacity from a site-selected baseline date shall be identified.*	Yes
Comment	1. Ecolab has developed its own sustainable water stewardship operation procedure, Q/320585 AAKS 899-2021, to standardize its water management activities. 2. Ecolab has established an Environment and Water Stewardship Committee to coordinate its environmental and water management related affairs. An organization chart of the environment and water stewardship management team established, including the manager representative of the water stewardship and the responsible department. 3. Ecolab implement AWS management on the site and has obtained the AWS certification since 2015 and upgraded to platinum certification in 2021.	
Score	2	
3.1.4	*Advanced Indicator* *Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the good water governance of the catchment shall be identified.*	N/A
Comment	The site does not perform this indicator.	
3.2	*Implement system to comply with water-related legal and regulatory requirements and respect water rights.*	
3.2.1	*A process to verify full legal and regulatory compliance shall be implemented.*	Yes

Comment	Ecolab has established a procedure to ensure the operation of Ecolab meet the provisions of relevant laws, regulations and other requirements. Ecolab timely obtains updated information on laws and regulations and conducts compliance evaluation on laws and regulations every year and keeps records. Ecolab has established a Laws and Regulations Management Procedure, which provides for the evaluation of compliance on a semi-year basis and provides updated assessment forms and assessment reports. According to Institute of Public and Environmental Affairs platform (a well-known environmental information disclosure platform in China) and monitoring reports, the facility operated in accordance with laws and regulations.

3.2.2 *Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.* Yes

Comment	Ecolab has established a procedure to ensure the operation of Ecolab meet the provisions of relevant laws, regulations and other requirements. Ecolab timely obtains updated information on laws and regulations and conducts compliance evaluation on laws and regulations every year and keeps records. The site has developed a water quality monitoring plan, including rainwater, discharged domestic wastewater to ensure that the drainage water quality and pollutant concentrations in groundwater and soil meet the requirements of laws and regulations. All industrial wastewater from the site is reused, and the site does not discharge industrial wastewater. A brief summary of monitoring point information and monitoring frequency is as follows: • Discharged domestic wastewater Ecolab has invited a third party to monitor the parameters (pH, SS, COD, BOC Petroleum, NH3-N, TP, TN, BOD5 and Anionic surfactant) of discharged domestic wastewater once a year. • Rainwater discharge Ecolab has installed an online monitoring system to monitor the pH, COD of rainwater.

3.3 *Implement plan to achieve site water balance targets.*

3.3.1 *Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.* Yes

Comment	Ecolab develops water stewardship plans every year. The site provided Water Stewardship Plan (Year 2023 and Year 2024) improvement action list, which specifies targets, required actions, measurement, status, effectiveness evaluation, accountable and deadline, etc. Ecolab has set targets for water consumption was 0.54 m3 of per ton products in 2023 and 0.49 m3 of per ton products in 2024 in its WSP. The site tracks its water consumption per ton product on a monthly basis. The water consumption was 0.51 m3 per ton in 2023; The water consumption was 0.44 m3 per ton product till to the end of June 2024 and 0.5 m3 per ton product till to the end of October 2024. The site management stated that due to transformation and construction of power distribution room, the rainwater could not be reused for production, so the water consumption was more in September and October 2024 than other months.

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

Comment	Ecolab develops water stewardship plans every year. The site provided Water Stewardship Plan (Year 2023 and Year 2024) improvement action list, which specifies targets, required actions, measurement, status, effectiveness evaluation, accountable and deadline, etc. Ecolab has set targets for water consumption was 0.54 m3 of per ton products in 2023 and 0.49 m3 of per ton products in 2024 in its WSP. The site tracks its water consumption per ton product on a monthly basis. As the water was on part of the products, the site could not set a target of total water consumption per year. Ecolab has developed a proposal for improving water balance and formulated water management implementation plan to achieve its Water Stewardship targets, which includes a number of implementation projects to improve the water efficiency of the site, such as: 1. Optimize the washing process in production, cancel the last washing process by fresh water, modify IBC bucket and replace a blending tank, reduce the water consumption per ton product. 2. Upgrade the reuse system of rainwater, increase the reuse rate of rainwater, and use it for cooling tower makeup, mechanical seal cooling, production processes, etc. 3. Increase the recovery and utilization rate of steam condensate water. 4. Optimize the purity water produce equipment, replace RO membrane and add ROR system. According to the data statistics and analysis records provided by the site, the water consumption was 0.51 m3 per ton in 2023; The water consumption was 0.44 m3 per ton product till to the end of June 2024 and 0.5 m3 per ton product till to the end of October 2024. The site management stated that due to transformation and construction of power distribution room, the rainwater could not be reused for production, so the water consumption was more in September and October 2024 than other months.	
3.3.3	*Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.*	Yes
Comment	No legally-binding documentation is issued by local government authorities to the site for the re-allocation of water to social, cultural or environmental needs.	
3.3.4	*Advanced Indicator* *The total volume of water voluntarily re-allocated (from site water savings) for social, cultural and environmental needs shall be quantified.*	N/A
Comment	The site does not perform this indicator.	
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

A series of water stewardship plans are implemented to achieve the site's water quality targets. According to the water quality monitoring plan, the site entrusts a third-party laboratory to test its various water quality. According to the test report and analysis record provided by the site, the water quality is 100% in line with its internal control standard.
1. Ecolab has developed a water quality monitoring plan and commissioned third-party laboratories to test the water quality of various sources, including drinking water, discharge domestic wastewater, rainwater, soil, groundwater and Nanheng River which next to the site.
2. Ecolab had continuously optimized the industrial wastewater treatment process to ensure zero discharge of industrial wastewater.

3. Ecolab has developed a management procedure for pollutant concentration in domestic wastewater discharge and established internal control indicators that are stricter than the discharge permit. The specific details are as follows: Internal control index of discharged wastewater: pH: 6.0-9.0, COD 450 mg/L, NH3-N 35 mg/L, TP 8 mg/L (Permit requirements: GB 8978-1996 intermediate discharge level 3 standard and Wastewater quality standards for discharge to municipal sewers Level A standard: SS 400 mg/L; COD 500mg/L; TP 8 mg/L; TN 70 mg/L; NH3-N 45 mg/L; PH 6.0-9.0; BOD5 300 mg/L; anion surfactant 20 mg/L)
4. Ecolab continuously optimize the industrial wastewater treatment process to ensure zero discharge of industrial wastewater.
The site tracks the progress of its Water Stewardship targets regularly.
Ecolab 1) achieved 100% of the internal control targets by 2023 and 2024; 2) Zero discharge of industrial wastewater; 3) the domestic wastewater is 100% in line with discharge requirements.

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

Yes

Comment

A series of water stewardship plans are implemented to achieve its water quality targets:
• The site has developed a water quality monitoring plan to regularly test the hardness of soft water and the conductivity of RO pure water
• Ecolab checks the water quality of the ETP system every day to ensure the normal operation of the ETP, collect the wastewater separately by modify high and low concentration industrial wastewater pipelines to, added filters for all inlet pipelines of ETP to improve the water quality of inlet wastewater, to improve wastewater treatment efficiency.
• The domestic wastewater meets the internal discharge standard
• Zero discharge of industrial wastewater.

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.*

No

Comment

The site did not implement the practice to maintain and enhance the site's IWRAs in 2023 and 2024.

Finding No: TNR-014650

3.5.2 *Advanced Indicator*
Evidence of completed restoration of non-functioning or severely degraded Important Water-Related Areas including where appropriate cultural values from a site-selected baseline date shall be identified. Restored areas may be outside of the site, but within the catchment.

N/A

Comment

The site does not perform this indicator.

3.5.3 *Advanced Indicator*
Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the healthy status of Important Water-Related Areas in the catchment shall be identified.

N/A

Comment	The site does not perform this indicator.	
3.6	*Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.*	
3.6.1	*Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.*	Yes
Comment	1. The WASH installations fully comply with the national "Hygienic Standards for the Design of Industrial Enterprises" (GBZ 1-2010). 2. Ecolab conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 98%. 3. Ecolab has conducted an environmental management questionnaire survey, collected employees' satisfaction with WASH adequacy, and conducted satisfaction analyses. 4. The site entrusts a third-party cleaning service unit to carry out the daily cleaning and maintenance of the site, and the site evaluates the performance of cleaning personnel every month. 5. The site entrusts the supplier to regularly maintain the water dispenser, including inspection, disinfection, filter element replacement, etc.	
3.6.2	*Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.*	Yes
Comment	No evidence is showed that the site is impinging on the human right to safe water and sanitation of communities through their operations according to the interviews with the site's employees, local community and local government authorities.	
3.6.3	*Advanced Indicator* *A list of actions taken to support the provision to stakeholders in the catchment of access to safe drinking water, adequate sanitation and hygiene awareness shall be identified.*	Yes
Comment	On September 22, 2024, Ecolab organized activity in Shanghai Children's Medical Center, volunteers clean the environment in the Medical Center and Ecolab also provided the disinfection supplies in the activity. Ecolab donated disinfection supplies to Taicang Police Station in 2023.	
Score	5	
3.6.4	*Advanced Indicator:* *In catchments where WASH has been identified as a shared water challenge, evidence of efforts taken with relevant public-sector agencies to share information and to advocate for change to address access to safe drinking water and sanitation shall be identified.*	N/A
Comment	The facility does not perform this indicator.	
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

Indirect water used targets have been set in the water stewardship plan. Ecolab has carried out actions to improve the water management ability of suppliers to achieve Ecolab's indirect water use targets. Ecolab tracks the achievement status of its targets, and actions are quantified.
Ecolab has screened and identified its main suppliers/service providers and then sent the questionnaires to investigate their indirect water consumption. Moreover, by using WWF's map of water risk filter, Ecolab also evaluated the water related risk level in the catchment where its suppliers/service providers are located.
Ecolab evaluates the water-related risks of suppliers/service providers based on their incoming water sources, water consumption, wastewater discharge and IPE violation records, and requires high-risk suppliers/service providers to provide discharge water test reports.
Ecolab communicated with suppliers/service providers and required major suppliers/service providers to carry out water-saving training. A total of 8 suppliers submitted feedback.
3. The site conducts on-site audits of its hazardous waste treatment service provider every year, covering topics related to environmental management. In 2023, the site conducted on-site audit on 1 hazardous waste treatment service provider. No finding was noted in the audit.

3.7.2 *Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.*

Yes

Comment

Indirect water use targets have been set in the water stewardship plan. Ecolab has carried out actions to improve the water management ability of suppliers to achieve Ecolab's indirect water use targets. Ecolab tracks the achievement status of its targets, and actions are quantified.
Ecolab has screened and identified its main suppliers/service providers and then sent the questionnaires to investigate their indirect water consumption. Moreover, by using WWF's map of water risk filter, Ecolab also evaluated the water related risk level in the catchment where its suppliers/service providers are located.
Ecolab evaluates the water-related risks of suppliers/service providers based on their incoming water sources, water consumption, wastewater discharge and IPE violation records, and requires high-risk suppliers/service providers to provide discharge water test reports.
Ecolab communicated with suppliers/service providers and required major suppliers/service providers to carry out water-saving training. A total of 8 suppliers submitted feedback.
The site conducts on-site audits of its hazardous waste treatment service provider every year, covering topics related to environmental management. In 2023, the site conducted on-site audit on 1 hazardous waste treatment service provider. No finding was noted in the audit.

3.7.3 *Advanced Indicator*
Actions taken to address water related risks and challenges related to indirect water use outside the catchment shall be documented and evaluated.

Yes

Comment

Ecolab communicated with suppliers/service providers and required major suppliers/service providers to carry out water-saving training. A total of 8 suppliers submitted feedback.

Score

5

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

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

Yes

Comment

Ecolab actively cooperates with government departments to carry out catchment governance affairs, including the implementation of environmental protection policies, environmental monitoring, government training and visits, etc.
Ecolab keeps close contact with local water-related infrastructure owners through many ways such as Wechat, e-mail or phone call.

3.9 *Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.*

3.9.1 *Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.*

Yes

Comment

1. Ecolab has developed its own sustainable water stewardship operation procedure, Q/320585 AAKS 899-2021, to standardize its water management activities.
2. Ecolab has established an Environment and Water Stewardship Committee to coordinate its environmental and water management related affairs. An organization chart of the environment and water stewardship management team established, including the manager representative of the water stewardship and the responsible department.
3. In 2024, Ecolab was awarded the honor of “Suzhou City 3A level Green Factory Demonstration (The first batch)”.

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

Yes

Comment

Ecolab has taken actions to towards achieving best practice for water balance including:
1. Optimize the washing process in production, cancel the last washing process by fresh water, modify IBC bucket and replace a blending tank, reduce the water consumption per ton product refer to the advance standard of Water Consumption Quota for Industrial Products (daily chemical products) of different province, such as Shanghai, Zhejiang and etc.
2. Upgrade the reuse system of rainwater, increase the reuse rate of rainwater, and use it for cooling tower makeup, mechanical seal cooling, production processes, etc.
3. Increase the recovery and utilization rate of steam condensate water.
4. Optimize the purity water produce equipment, replace RO membrane and add ROR system, improve the purity water produce rate.
Ecolab has set the target of water consumption per unit product and evaluated its performance every month. At the same time, the site also continues to track the progress of water balance targets in its water stewardship plan.

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

Yes

Comment

Ecolab has taken actions to towards achieving best practice for water quality including:
1. Industrial wastewater is transported through visual pipe network to avoid environmental pollution caused by potential wastewater leakage.
2. Zero discharge of industrial wastewater
• The internal discharge standard of domestic wastewater is 90% of the discharge standard (GB 8978-1996 Table 4 Level 3 Standard). The factory entrusts a third-party organization to test its domestic wastewater every year. The discharge concentration of domestic wastewater in the factory is 100% in line with the requirements of its internal control index.
• Ecolab has developed a water quality monitoring plan and regularly tests domestic wastewater, rainwater, and production water. Ecolab has installed an automatic online monitoring system at the rainwater discharge outlet to monitor the pH and COD of rainwater in real-time.
• Ecolab is currently upgrading its rainwater discharge system, using automatic valves to control rainwater discharge and establishing a chain with online monitoring systems to achieve safer and more accurate rainwater discharge processes.
The site tracks the progress of its Water Stewardship targets regularly.

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.*

No

Comment

The site has not implemented the actions toward achieving best practice, related to targets in terms of the site's maintenance of IWRS.

Finding No: TNR-014676

3.9.5	*Actions towards achieving best practice related to targets in terms of WASH shall be implemented.*	Yes
Comment	1. The WASH installations fully comply with the national “Hygienic Standards for the Design of Industrial Enterprises” (GBZ 1-2010). 2. The site conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 98%. 3. Ecolab has conducted an environmental management questionnaire survey, collected employees’ satisfaction with WASH adequacy, and conducted satisfaction analyses. 4. The site entrusts a third-party cleaning service unit to carry out the daily cleaning and maintenance of the site, and the site evaluates the performance of cleaning personnel every month. 5. The site entrusts the supplier to regularly maintain the water dispenser, including inspection, disinfection, filter element replacement, etc.	
3.9.6	*Advanced Indicator* *Achievement of identified best practice related to targets in terms of good water governance shall be quantified.*	Yes
Comment	The site has quantified the performance of the targets set in the Water stewardship plan which includes Best Practice such as 1. Ecolab has developed its own sustainable water stewardship operation procedure, Q/320585 AAKS 899-2021, to standardize its water management activities. 2. Ecolab has established an Environment and Water Stewardship Committee to coordinate its environmental and water management related affairs. An organization chart of the environment and water stewardship management team established, including the manager representative of the water stewardship and the responsible department. 3. In 2024, Ecolab was awarded the honor of “Suzhou City 3A level Green Factory Demonstration (The first batch)”.	
Score	8	
3.9.7	*Advanced Indicator* *Achievement of identified best practice related to targets in terms of sustainable water balance shall be quantified.*	Yes
Comment	The site has quantified the performance of the targets set in the Water stewardship plan which includes Best Practice, such as: Ecolab had used rainwater collection and treatment devices since May 2022. In 2022, a total of 2800m3 of rainwater was recovered, accounting for approximately 5.6% of its annual inflow; In 2023, rainwater usage accounts for approximately 10% of the inflow the site. All industrial wastewater is reused for production after internal ETP treatment, and no industrial wastewater is discharged from the site. According to the data statistics and analysis records provided by the site, the water consumption was 0.51 m3 per ton in 2023 which meet the advance standard of Water Consumption Quota for Industrial Products (daily chemical products) of neighbor provinces (no advance standard was found in Jiangsu Province), such as Shanghai, Zhejiang and etc.; The water consumption was 0.44 m3 per ton product till to the end of June 2024 and 0.5 m3 per ton product till to the end of October 2024. The site management stated that due to transformation and construction of power distribution room, the rainwater could not be reused for production, so the water consumption was more in September and October 2024 than other months.	
Score	8	
3.9.8	*Advanced Indicator* *Achievement of identified best practices related to targets in terms of water quality shall be quantified*	Yes

Comment	The site has quantified the performance of the targets set in the Water stewardship plan which includes Best Practice such as 1. Industrial wastewater is transported through visual pipe network to avoid environmental pollution caused by potential wastewater leakage. 2. Zero discharge of industrial wastewater • The internal discharge standard of domestic wastewater is 90% of the discharge standard (GB 8978-1996 Table 4 Level 3 Standard). The factory entrusts a third-party organization to test its domestic wastewater every year. The discharge concentration of domestic wastewater in the factory is 100% in line with the requirements of its internal control index. • Ecolab has developed a water quality monitoring plan and regularly tests domestic wastewater, rainwater, and production water. Ecolab has installed an automatic online monitoring system at the rainwater discharge outlet to monitor the pH and COD of rainwater in real-time. • Ecolab is currently upgrading its rainwater discharge system, using automatic valves to control rainwater discharge and establishing a chain with online monitoring systems at the rainwater discharge outlet to monitor the pH and COD of rainwater in real-time.
Score	8

3.9.9 *Advanced Indicator*
Achievement of identified best practices related to targets in terms of the site's maintenance of Important Water-Related Areas have been implemented.

N/A

Comment	The site does not perform this indicator.

3.9.10 *Advanced Indicator*
Achievement of identified best practice related to targets in terms of WASH shall be quantified.

Yes

Comment	1. The site conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 98%. 2. Ecolab investigates the distribution of drinking water points and toilet facilities within the site and analyses the adequacy of these facilities based on and the result shows that the requirements are fulfilled. 3. The site entrusts a third-party cleaning service unit to carry out the daily cleaning and maintenance of the site, and the site evaluates the performance of cleaning personnel every month. 4. The site entrusts the supplier to regularly maintain the water dispenser, including inspection, disinfection, filter element replacement, etc.
Score	4

3.9.11 *Advanced Indicator*
A list of efforts to spread best practices shall be identified.

Yes

Comment	On April 26, 2024, Ecolab attend the "Wetland+" Multi-Party Network Co-creation Meeting which organized by One Planet Nature Foundation and Taicang Wetland Protection and Management Station in Taicang Jincang Lake Wetland Park, Ecolab shared the practice and achievements in sustainable water management. On December 7, 2023, an 8-member delegation from YICHANG HUMANWELL PHARMACEUTICAL visited Ecolab to exchange Ecolab's experience in sustainable water management, especially about the wastewater Zero discharge. On June 17, 2024, Nonfu shanquan Group visited Ecolab to exchange Experience in sustainable water management, especially about chemical management.
Score	3

3.9.12 *Advanced Indicator*
A list of collective action efforts, including the organizations involved, positions of responsible persons of other entities involved, and a description of the role played by the site shall be identified.

Yes

Comment	On April 26, 2024, Ecolab teamed up with One Planet Nature Foundation, Taicang Wetland Protection and Management Station, local government, foreign enterprises, public welfare organizations, and industry experts to carry out the "Wetland+" Multi-Party Network Co-creation Meeting in Taicang Jincang Lake Wetland Park, Ecolab shared the practice and achievements in sustainable water management. On March 26, 2024, Ecolab as an organizer a “Clean Beach” activity in Zhenghe Park with two service providers. In March 2024, Ecolab as an organizer, organized a ‘Tree-Planting’ in site with two service providers. Ecolab shared their best practice to five neighbor companies every year through WeChat, email and etc.
Score	10

3.9.13 *Advanced Indicator*

Evidence of the quantified improvement that has resulted from the collective action relative to a site-selected baseline date shall be identified and evidence from an appropriate range of stakeholders linked to the collective action (including both those implementing the action and those affected by the action) that the site is materially and positively contributing to the achievement of the collective action shall be identified.

N/A

Comment: The site does not perform this indicator.

4	STEP 4: EVALUATE - Evaluate the site's performance.	
4.1	*Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.*	
4.1.1	*Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.*	Yes
Comment	A management review was conducted on March 15, 2024 to summarize the overall environmental performance in 2023, and the environmental performance in 2023 was summarized, which included water stewardship review, water stewardship plan and check each performance of targets in the plan.	
4.1.2	*Value creation resulting from the water stewardship plan shall be evaluated.*	Yes
Comment	The site analyzed its value creation resulting from the implementation of water stewardship plan, especially the implementation of water-saving projects. For example, Ecolab implemented rainwater recovery project, steam condensate water reusing project, mixing tank cleaning water reducing project and etc. As of 2023, Ecolab has reduced water consumption by 13,169 tons and reduced water costs by 352,700-yuan RMB.	
4.1.3	*The shared value benefits in the catchment shall be identified and where applicable, quantified.*	No
Comment	The site analyzed its value creation resulting from the implementation of water stewardship plan, especially the implementation of water-saving projects. For example, Ecolab implemented rainwater recovery project, steam condensate water reusing project, mixing tank cleaning water reducing project and etc. As of 2023, Ecolab has reduced water consumption by 13,169 tons and reduced water costs by 352,700-yuan RMB. The site also held water stewardship activities in catchment, involved over 10 stakeholders during 2024, to promote the awareness and shared the experiences and practices. ***Finding No: TNR-014679***	
4.1.4	*Advanced Indicator* *A governance or executive-level review, including discussion of shared water challenges, water risks, and opportunities, and any water-related cost savings or benefits realized, and any relevant incidents shall be identified.*	Yes
Comment	Mr. Zhong Weidong, the Factory Manager of Ecolab attended the management review of 2023 environmental performance in March 2024, participated in the discussion of the review meeting, and was responsible for signing off the results of the review.	
Score	3	
4.2	*Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.*	
4.2.1	*A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.*	Yes
Comment	The site presents its emergency response procedure and plan identifying proposed preventive and corrective actions, as well as measures to mitigate future incidents. No water-related emergencies and extreme events occurred at the site in recent years.	

4.3	*Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.*	
4.3.1	*Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.*	No
Comment	The site performed a satisfaction survey regarding its water stewardship performance. The survey results showed that participants are very satisfied with or satisfied with Ecolab. ***Finding No: TNR-014680***	
4.3.2	*Advanced Indicator* *The site's efforts to address shared water challenges shall be evaluated by stakeholders. This shall include stakeholder reviewing of the site's efforts across all five outcome areas, and their suggestions for continual improvement.*	N/A
Comment	The site does not perform this indicator.	
4.4	*Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.*	
4.4.1	*The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.*	Yes
Comment	Ecolab has developed an 'AWS Management Manual', which specifies that its water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations annual. Plan for 2023 was developed at the January 2023 and the 2024 plan was developed in January 2024. The site modified the plan when any relevant information and lessons learned from the evaluations annual.	

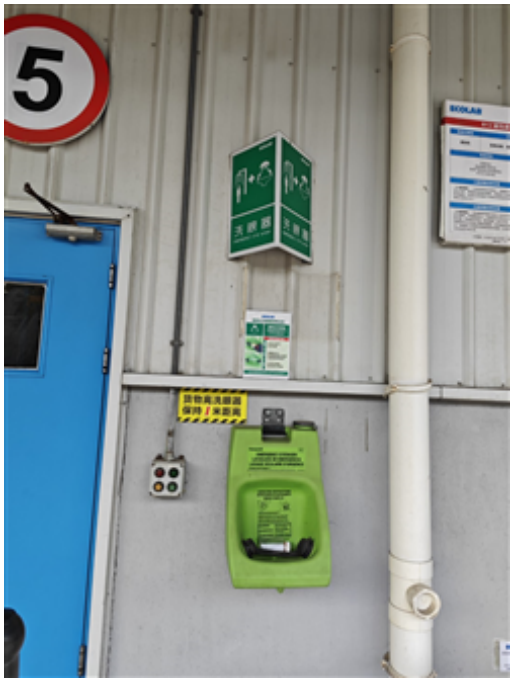
5	**STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts**	
5.1	*Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.*	
5.1.1	*The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.*	Yes
Comment	The site disclosed the site's internal governance in relation to water, communication on sustainable water management issues on the bulletin board at its entrance.	
5.2	*Communicate the water stewardship plan with relevant stakeholders.*	
5.2.1	*The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.*	Yes
Comment	The site communicates its water stewardship plan with stakeholders through various channels, such as: 1. Stakeholder survey questionnaires 2. Disclosure on the Ecolab official website: https://www.ecolab.com.cn/news/2024/local/zc-20241125-water-stewardship-plan 3. Sharing at stakeholder events	
5.3	*Disclose annual site water stewardship summary, including: the relevant information about the site's annual water stewardship performance and results against the site's targets.*	
5.3.1	*A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.*	Yes
Comment	The site disclosed the water stewardship performance of 2024, including quantified performance against targets on the bulletin board at its entrance.	
5.3.2	*Advanced Indicator* *The site's efforts to implement the AWS Standard shall be disclosed in the organization's annual report.*	Yes
Comment	In the site's CSR report of 2023, its implementation of water stewardship against the AWS Standard was disclosed.	
Score	1	
5.3.3	*Advanced Indicator* *Benefits to the site and stakeholders from implementation of the AWS Standard shall be quantified in the organization's annual report.*	N/A
Comment	The facility does not perform this indicator.	
5.4	*Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges;engagement with stakeholders; and co-ordination with public-sector agencies.*	
5.4.1	*The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.*	Yes
Comment	The site disclosed the shared water-related challenges and the efforts to address these challenges on the bulletin board at its entrance.	

5.4.2	*Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.*	Yes
Comment	The site disclosed the effort to address shared water challenges, internal governance in relation to water, and communicate on sustainable water management issues regularly. The site also proactively shares its best practice results with stakeholders, such as suppliers and neighboring businesses. By signing emergency mutual aid agreements, the site has established an emergency mutual aid alliance with emergency authorities and neighboring enterprises to jointly withstand sudden incidents, including safety, environmental, and climate disasters.	
5.5	*Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.*	
5.5.1	*Any site water-related compliance violations and associated corrections shall be disclosed.*	Yes
Comment	A procedure to manage non-conformance and related corrective action is developed, there is no water-related compliance violation identified in past few years.	
5.5.2	*Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.*	Yes
Comment	A procedure to manage non-conformance and related corrective action is developed, there is no water-related compliance violation identified in past few years.	
5.5.3	*Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.*	Yes
Comment	A procedure to manage non-conformance and related corrective action is developed, any site water-related violation that may pose significant risk and threat to human or ecosystem health is required to be immediately communicated to the relevant public.	

Photographic Evidence from Audit

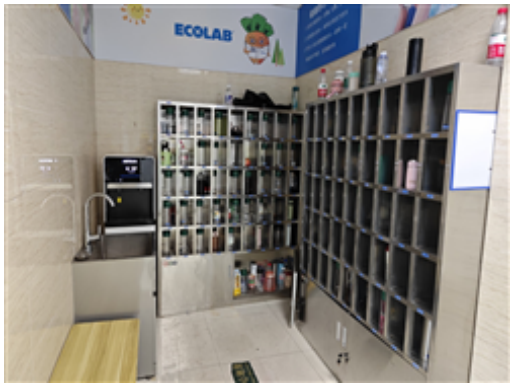
Yes

Site Gate.jpg



Emergency eyewash station.jpg

Chemical warehouse.jpg

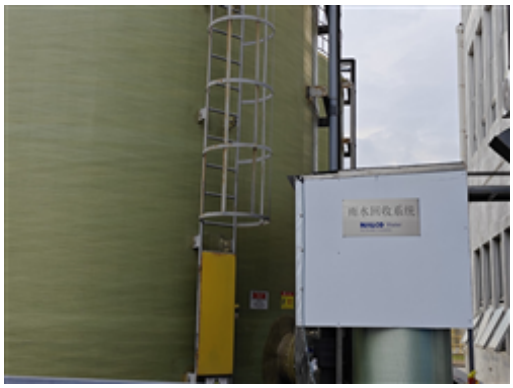


Drinking water area.jpg

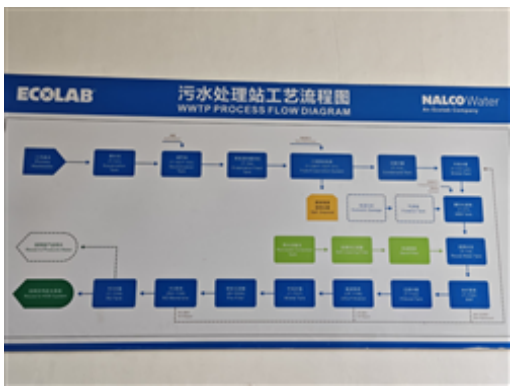
Aerial view of the site.jpg

Groundwater monitoring point.jpg

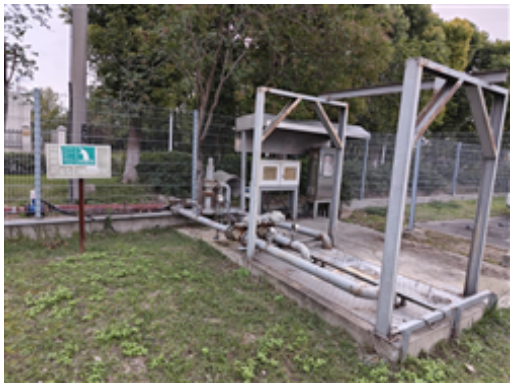
Canteen.jpg



Rainwater recovery system.jpg



Wastewater treatment system flowchart.jpg



Wastewater discharge outlet.jpg

Stormwater discharge outlet.jpg

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