CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001413

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

SITE DETAILS

Site: **WUS Printed Circuit (Kunshan) Co., Ltd.**
Address: No.1 Donglong Road, 215300, Kunshan City, Jiangsu Province, P.R. CHINA
Contact Person: Lisa Liu
AWS Reference Number: AWS-000768
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Platinum
Date of certification decision: 2025-Mar-31
Validity of certificate: 2028-Mar-30

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Initial Audit
Audit Start Date: 2024-Dec-17
Audit End Date: 2024-Dec-19
Lead Auditor: Lingyun Yu

Audit team participants:
Lorry Long

Site Participants:
Su Hao, Factory Director
Zhao Shaohua, Factory Supervisor
Li Minghuan, Factory Manager
Tang Jiajin, Factory Engineer
Wen Lijie, Factory Engineer
Liu Chaohui, Quality Supervisor
Cao Zhengxing, Factory Manager
Qin Qiyu, Factory Engineer
Chen Fei, Factory Manager

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ADDITIONAL INFO

Summary of Audit Findings: A total of 5 findings were raised during the certification audit, 3 minor non-conformities, and 2 observations.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 30 days of receipt of the audit report by 16/01/2025.

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

The audit team recommends certification of Wus Printed Circuit (Kunshan) Co., Ltd. at Platinum level pending approval of the corrective actions plan.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of Wus Printed Circuit (Kunshan) Co., Ltd, against the AWS International Water Stewardship Standard Version 2.

Wus Printed Circuit (Kunshan) Co., Ltd. was established in 1992 and went public in 2010. It is one of the well-known companies in the printed circuit board industry. The company is located at No. 1 Donglong Road, Kunshan City, with a total area of 186,648 square meters. While maintaining stable production and operation, the company has always paid great attention to environmental protection and management. Adhering to green manufacturing and design, the company continuously explores more green products and adopts green energy-saving technologies, new material processes, and intelligent production management methods to promote the industry's development towards green and environmentally friendly directions. These are the practices that the site has committed to and is implementing.

The audit was conducted onsite from December 17th to 19th, 2024.
The audit activities included the site visit covering production lines, wastewater treatment plant, chemical warehouse and IWRA, stakeholder interviews, and document review.

SCORE

100.00

FINDINGS

NUMBER OF FINDINGS PER LEVEL

Observation	2
Minor	3

FINDING DETAILS

Finding No:	TNR-015871
Checklist Item No:	1.2.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Dec-16
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 has not yet established a stakeholder identification and communication procedure to clarify the process of stakeholder identification and define the scope of influence around the site.
Corrective action:	The site plans to reassess and clarify the impact of the site on the surrounding area by referring to the EIA report and other materials, and to improve the identification and communication procedures with stakeholders.

Finding No:	TNR-015872
Checklist Item No:	1.2.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Dec-16
Checklist item:	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.
Findings:	The analysis model for the degree of influence between site and stakeholder is not reasonable.
Corrective action:	The site plans to update the stakeholder analysis table, re-establish the stakeholder impact and influence assessment model based on the AWS guidelines, and conduct the assessment again.

Finding No:	TNR-015873
Checklist Item No:	1.3.5
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Dec-16
Checklist item:	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.
Findings:	The site drew a distribution map of potential pollution sources. However, the map did not clearly mark the coverage areas of each potential pollution source.
Corrective action:	The site plans to redraw the map of potential pollution sources and clarify the coverage of each potential pollution source.

Finding No:	TNR-015874
Checklist Item No:	1.4.1
Status:	Open
Finding level:	Observation
Checklist item:	The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.
Findings:	It is recommended that the site improve the indirect water use risk identification process, incorporating supplier internal risks (such as supplier water management policies, water usage, water sources, wastewater quality, compliance, etc.) into the scope of indirect water use assessment.

Finding No:	TNR-017508
Checklist Item No:	1.6.1
Status:	Open
Finding level:	Observation
Checklist item:	Shared water challenges shall be identified and prioritized from the information gathered.
Findings:	The site could update the stakeholder survey questionnaire to better address shared water-related challenges within the catchment. Additionally, clarifying the question descriptions would help prevent misunderstandings.

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Audit Number: AO-001413

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

Report Details

Report	Value
Report prepared by	Lingyun Yu
Report approved by	Ruth Wandera
Report approved on (Date)	31/03/2025

Surveillance

Proposed date for next audit
2025-Dec-16

Stakeholder Announcements

Date of publication	Location
14/08/2024	https://a4ws.org/wp-content/uploads/2024/10/AWS-000768_Wus-Printed-Circuit-Kunshan-Co.%EF%BC%8CLtd._StakeholderAnnouncement_MonthYY_V3.0-billingual-002.pdf
15/10/2024	https://www.tuv.com/content-media-files/greater-china/about-us/downloads/management-systems/aws-000768_wus-printed-circuit-(kunshan)-co.%EF%BC%8Cltd._stakeholderannouncement_monthyy_v3.0-billingual-3.pdf
15/10/2024	http://www.wustec.com/newsdetail.php?id=96

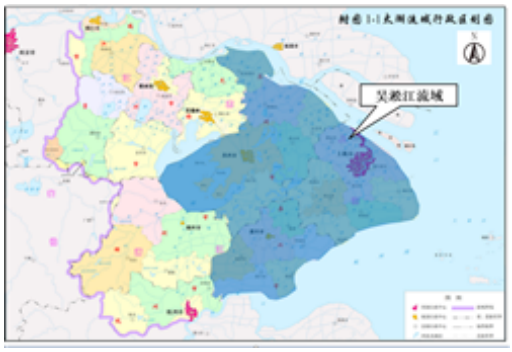
Catchment Information

Catchment Information

The site is located in the Wusong River Basin which is a sub-basin of the Taihu Lake Basin, located in the lower reaches of Taihu Lake. It is named after the Wusong River, the main stream in the basin.
Introduction to the Taihu Basin
The Taihu Basin is a significant geographical and hydrological region located in the eastern part of China, primarily within the provinces of Jiangsu and Zhejiang. It encompasses the vast Taihu Lake, which is one of China's 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 major cities such as Shanghai 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.

The Wusong River Basin is a sub-basin of the Taihu Basin, located downstream of Taihu Lake and named after the main river within the basin, the Wusong River. The Wusong River Basin covers three areas: Suzhou City in Jiangsu Province, Shanghai, and Jiaxing City in Zhejiang Province, with a total basin area of 855 square kilometers.
The Wusong River belongs to the Taihu Lake system. It originates from the Gua Jingkou of Taihu Lake, south of Songling Town in Wujiang District, Suzhou City, and flows from west to east through Wujiang, Suzhou, Kunshan, and the districts of Qingpu, Jiading, Minhang, Putuo, Changning, Jing'an, Hongkou, and Huangpu in Shanghai, before discharging into the Huangpu River at Waibaidu Bridge. With Beixinjing as the boundary, the upstream of the Wusong River is called the Wusong River by the local people, while the downstream east of Beixinjing, after entering the urban area of Shanghai, is known as the Suzhou River by the locals.
The Wusong River is 125 kilometers long, with a river section of 53.1 kilometers within the territory of Shanghai. The average river width is about 40 to 50 meters, and the estuary discharge flow is approximately 10 cubic meters per second, making it the largest tributary of the Huangpu River. Figure 1-2 illustrates the areas through which the Wusong River flows.

The Wusong River serves multiple functions, including flood control, drainage, water supply, navigation, and landscape, playing a significant role in the regional economy, society, and ecological environment:
Flood Control and Drainage: It currently serves as a major external drainage channel for the region and is planned to be one of the three major flood discharge channels in the Taihu Basin, playing a role in discharging floodwaters from the basin, as well as receiving and regulating floodwaters from the surrounding areas.
Water Supply: It carries water from Taihu Lake through Gua Jingkou to the downstream areas, providing water for industrial, agricultural, and domestic use on both banks.
Navigation: The section east of the Beijing-Hangzhou Grand Canal is known as the Su-Shen Inner River Navigation Line, an important inland waterway connecting the Taihu Lake network, the Beijing-Hangzhou Grand Canal, and the Yangtze River. It is included in the national high-grade navigation network plan. Currently, it is a Class V navigation channel, and with the comprehensive management of the river, the navigation standard is being upgraded to Class III.
Another river within the Wusong River Basin, the Taipu River, is one of the largest man-made rivers in the Taihu Basin, named for its connection between Taihu Lake and the Huangpu River. The Taipu River spans Suzhou City in Jiangsu Province, Jiaxing City in Zhejiang Province, and Shanghai. The river starts from Shijia Gang in Hengshan Town, Wujiang District, Suzhou City, at the edge of East Taihu Lake, intersects with the South Jiangsu Canal at Pingwang North, and then flows through Fen Lake to Nanda Port, entering the Ximao River and connecting to the Huangpu River, with a total length of 57.6 kilometers. It is one of the main channels for discharging floodwaters from Taihu Lake.



Catchment boundary.png

Client Description and Site Details

Client/Site Background
Wus Printed Circuit (Kunshan) Co., Ltd. was established in 1992 and went public in 2010. It is one of the well-known companies in the printed circuit board industry. The company is located at No. 1 Donglong Road, Kunshan City, with a total area of 186,648 square meters. While maintaining stable production and operation, the company has always paid great attention to environmental protection and management. Adhering to green manufacturing and design, the company continuously explores more green products and adopts green energy-saving technologies, new material processes, and intelligent production management methods to promote the industry's development towards green and environmentally friendly directions. These are the practices that the site has committed to and is implementing.

	Summary of Shared Water Challenges

Summary of Shared Water Challenges
The site faced with the following shared water challenges:
1. The phenomenon of water scarcity will persist in the long term, high priority.
2. Regulations related to water efficiency and wastewater discharge are becoming increasingly stringent, high priority.
3. Transparency in corporate regulatory compliance information needs to be improved, high priority.
4. Climate change leads to frequent extreme weather events, such as floods, typhoons, and heavy rain, medium priority.
5. The overall water ecosystem is relatively fragile, medium priority.
6. There is a significant load on the pollutants received by the water bodies within the basin, and there is a risk of environmental water quality deterioration, medium priority.
7. The government's regulatory efforts on polluting enterprises need to be enhanced, medium priority.
8. The appeal and enforcement of planning and policies within the basin need to be improved, medium priority.

Meanwhile, based on the analysis of relevance/rationale for stakeholders and relevance/rationale for the site, the site has prioritized the shared challenges from low to high. 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.*	✓ Yes
Comment	The industrial wastewater generated at the site is treated by the ETP within the site and then discharged into the nearby river (Qingyanggang River), which ultimately flows into Wusongjiang. The audit team visited the nearby river (Qingyanggang River) and the wastewater discharge outlet set up by the site along the Qingyanggang River. In addition, the site also draws river water (the water intake point is located in Wusongjiang) for landscaping, toilet flushing, and the circulating cooling system. The audit team visited the water intake point set up by the site.	
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. The site also collects information on the destination of its wastewater discharge, the location of the final receiving water body, the location of water service providers, and their water sources.
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 wastewater and rainwater.
• Map of water-related infrastructures at the site such as pipeline, and wastewater treatment plant.
• Map of the water plant (Kunshan City Water Supply Group Co., Ltd.) and its ultimate water source (main water source: Kuilei Lake, emergency water source: Yangtze River), municipal WWTP (Wusongjiang Wastewater Treatment Plant) and its ultimate receiving water body (Wusongjiang).
The site uses municipal water as its primary source for production and living. Additionally, the site draws river water (intake point located at Wusongjiang) for landscaping, toilet flushing, and the recirculating cooling system.
Domestic wastewater is directly incorporated into the municipal wastewater network and treated by the municipal WWTP (Wusongjiang Wastewater Treatment Plant); industrial wastewater is treated by the ETP within the site and then discharged into the nearby river (Qingyanggang River), which ultimately flows into Wusongjiang. The rainwater is also discharged into the nearby river (Qingyanggang 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.*	No
Comment	The site has identified stakeholders such as the government, employees, NGOs, surrounding residents, suppliers, infrastructures, and surrounding companies. The site has developed an analysis table of stakeholders and has established diversified communication channels with different stakeholders, such as phone calls, e-mails, meetings, questionnaires, visits, etc.	
	Finding No: TNR-015871	
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.*	No
Comment	Current and potential degree of influence between site and stakeholder were identified, however, the analysis model for the degree of influence between site and stakeholder is not reasonable.	
	Finding No: TNR-015872	
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. Such as: 1. Comprehensive emergency plan for sudden environmental incidents, which identifies the response process for emergency situations related to environmental pollution, including topics such as wastewater, chemicals, hazardous waste, air emissions, etc, The plan was registered with Kunshan Ecological Environment Bureau, 320583-2023-1563-1-1 2. Emergency plans for natural disasters, identifying response processes for natural disasters such as floods, typhoons, heavy rains, and earthquakes, KWI517-002/003/001Q 3. Emergency response process for chemical spills, KWI517-007/008/009/010 4. Emergency plan related to water supply, EWI801-024 5. Emergency Plan for Wastewater Treatment Station, KWI517-020 6. Contagious Disease Emergency Plan, KWI517-001 7. Food Poisoning Emergency Plan, KWI517-004 8. Occupational Disease Hazard Accident Emergency Response Plan, KWI517-018 The site prepares an emergency drill plan every year, which includes all the drill needs planned for the year (including water-related emergency drills), and the drill topics, participants, drill time, etc. are defined.	
1.3.2	*Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped*	Yes

Comment	• The site has installed a digital water meter system to measure water consumption in real-time in various key departments (such as pure water stations, cooling water towers, canteen, and each production line), and analyze water consumption and trends daily. • The site tracks the readings of each water meter and carries out a water balance analysis every month. • The site has recorded the income and input and output data via meter or estimation and developed a water balance map based on the data. The water balance map reflected the water inflows, losses, reuses, and outflows. • In July 2022, the site commissioned a third-party organization to conduct water balance testing, complied with the “General Principles of Water Balance Test in Enterprises (GB/T12452-2008)”, a China national standard, which identifies water inflow, losses, storage and drainage, including production water, domestic water, reuse water, reuse water, etc. The testing was valid for three years. The water balance of 2023 was about 2.8%.

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 has installed a digital water meter system to measure water consumption in real-time in various key departments (such as pure water stations, cooling water towers, canteen, and each production line), and analyze water consumption and trends daily. • The site tracks the readings of each water meter and carries out a water balance analysis every month. • The site has recorded the income and input and output data via meter or estimation and developed a water balance map based on the data. The water balance map reflected the water inflows, losses, reuses, and outflows. The indication of annual variance in water usage rates could also be identified as well.	

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 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: - Industrial wastewater: • According to the requirements of the wastewater discharge permit, the site regularly entrusts a third-party laboratory to test the discharged wastewater • The site has installed online monitoring facilities at the wastewater discharge outlet to monitor pH, COD, ammonia nitrogen, Cu, and TP in real-time • Internal laboratory conducts daily testing of industrial wastewater discharge outlet and wastewater treatment processes - 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 in real-time • The site entrusts a third-party laboratory to test the water quality of rainwater outlets monthly. - Drinking water • The site entrusts a third-party laboratory once a year to test the water quality of the secondary water supply in the site area. • The site provides employees with free drinking water, is equipped with 110 water dispensers, and entrusts a third-party laboratory once a year to test the quality of drinking water, in accordance with the standard: Drinking Water Quality Standard, GB 5749-2022 Environmental water quality • There are a total of 4 groundwater and 13 soil monitoring points in the site area, which are monitored once a year • Monitoring of significant water bodies outside the site perimeter, Wusong River (the ultimate receiving water body for site rainwater, domestic wastewater, and industrial wastewater), with parameters including pH, ammonia nitrogen, COD, TP, TSS, cyanide, BOD, Cu, Ni. Reference standard: "Surface Water Environmental Quality Standard" GB 3838-2002. The sampling point is located on the southwest side of the site boundary, downstream of the site's industrial wastewater discharge outlet.	
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 drew a distribution map of potential pollution sources. However, the map did not clearly mark the coverage areas of each potential pollution source. ***Finding No: TNR-015873***	
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

The water-related costs sheet was provided for review, including:
1. Water supply costs
2. Cost of wastewater discharge rights
3. Cost of Water/Wastewater Treatment (including electricity of pumps, consumables, depreciation and maintenance of facilities, etc.)
4. Water/wastewater/rainwater quality testing, peripheral water testing. Operation and maintenance of wastewater online testing facilities
5. Environmental training, frugal project investment, stakeholders' collaboration
6. AWS related expenses
The site identified water-related cost data for 2023.

The water-related revenues included: Income from frugal projects, revenue generated from copper recovered in site waste liquids, 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

• As per the Evaluation Report on the Effectiveness of Occupational Disease Hazard Control The WASH facilities in the site area, such as the restaurant, workshops, etc. comply with the requirements of the Hygiene Standards for Industrial Enterprises (GBZ 1-2002).
• The site installs water purification facilities in workshops and office areas, providing drinking water to employees. The water purification facilities were regularly maintained.
• The site entrusts a third-party laboratory once a year to test the water quality of the secondary water supply in the site area.
• The site provides employees with free drinking water, is equipped with 110 water dispensers, and entrusts a third-party laboratory once a year to test the quality of drinking water, in accordance with the standard: Drinking Water Quality Standard, GB 5749-2022
• 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 satisfactory.

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.* No

Comment

The site screened and identified the suppliers/service providers, categorizing them into 14 types based on raw materials and auxiliary materials, such as CCL&PP suppliers, engineering material suppliers, precious metals, packaging material suppliers, chemical suppliers, etc. They selected suppliers with a procurement amount greater than 5% in each category for investigation, resulting in 45 suppliers being included in the survey, and all 45 suppliers responded to the site's survey.

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 location and WWF water risk screening results, etc.

Finding No: TNR-015874

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

Comment

The site also collects the water consumption of its outsourced services such as hazardous waste and non-hazardous waste disposal units, and uniform cleaning service providers through interviews/questionnaires.

1.4.3	*Advanced Indicator* *The embedded water use of primary inputs in catchment(s) of origin shall be quantified.*	Yes
Comment	The site screened and identified the suppliers/service providers, categorizing them into 14 types based on raw materials and auxiliary materials, such as CCL&PP suppliers, engineering material suppliers, precious metals, packaging material suppliers, chemical suppliers, etc. They selected suppliers with a procurement amount greater than 5% in each category for investigation. 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 main 45 suppliers is approximately 400 million tons. The embedded water use of materials is about 90000 tons by calculation (based on data provided by the main 45 suppliers)	
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 water balance for Suzhou City which covered the area of the catchments.
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), total water supply (m3) and total water consumption(m3). All the data is collected from government website and publishing report.
According to the Suzhou Water Resources Bulletin (2023), the total water resources in Suzhou in 2023 were 4.9149 billion cubic meters, a increase of 2.2923 billion cubic meters from the historical average. Among them, the surface water resources are 1.7226 billion cubic meters, and the groundwater resources are 984.8 million cubic meters.
In 2023, the total water consumption in the city was 10.015 billion cubic meters, including 1.106 billion cubic meters for agricultural water consumption, 7.352 billion cubic meters for industrial water consumption, 1.163 billion cubic meters for domestic water consumption, and 0.362 billion cubic meters for ecological environment water consumption. From 2015 to 2023, the water consumption in Suzhou remained stable.
According to the "Comprehensive Plan for Water Resources in Suzhou City (2021-2035)", the surface water resource consumption rate in Suzhou City was 28.70% in 2020, and the average surface water resource consumption rate in the past five years was 33.28%. The surface water development and utilization rate in Suzhou City was 29.44% in 2020, and the average surface water resource development and utilization rate in the past five years was 38.26%. In 2020, the groundwater intake in Suzhou City was about 0.03 million cubic meters, and the average groundwater resource development and utilization rate in the past five years was 0.62%. (Data source: Suzhou City Comprehensive Plan for Water Resources (2021-2035))

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

Yes

Comment

The Catchment Background Survey Report provides a detailed analysis of water quality for the catchment. The site obtained the relate information from the government website. (Mainly from the Environmental and Ecological Bureau).
The data includes the water quality of the water source, the final discharged water body, the water from municipal water plant.
The data will be published monthly or annually, therefore, the annual variances could be identified.

In 2022, 86.7% of the cross section of river within the catchment could meet the government requirement, which was better than previous year.
Overall, the catchment's water quality is stable and improving, but some area may face the threaten of pollution.

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 Area of the catchment.
The Important Water-Related Areas are collected from government published documents, including 'Ecological protection red line of Jiangsu Province' ,'Ecological environment zoning of three lines and one list'. 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	The site obtained the WASH status in Suzhou from Suzhou Statistical Yearbook for 2023, including the tap water penetration rate, wastewater treatment rate and other data. Overall, the WASH services is good in Suzhou City.	
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 monitors the significant water bodies outside the site perimeter, Wusong River (the ultimate receiving water body for site rainwater, domestic wastewater, and industrial wastewater), with parameters including pH, ammonia nitrogen, COD, TP, TSS, cyanide, BOD, Cu, Ni. Reference standard: "Surface Water Environmental Quality Standard" GB 3838-2002. The sampling point is located on the southwest side of the site boundary, downstream of the site's industrial wastewater discharge outlet. The site shared the test reports with its key stakeholders, such as the Environmental Protection Bureau and surrounding enterprises.	
Score	6	
1.5.9	*Advanced Indicator* *The adequacy of WASH provision within the catchments of origin of primary inputs shall be identified.*	Yes
Comment	The site 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.*	Obs.

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. The phenomenon of water scarcity will persist in the long term, high priority. 2. Regulations related to water efficiency and wastewater discharge are becoming increasingly stringent, high priority. 3. Transparency in corporate regulatory compliance information needs to be improved, high priority. 4. Climate change leads to frequent extreme weather events, such as floods, typhoons, and heavy rain, medium priority. 5. The overall water ecosystem is relatively fragile, medium priority. 6. There is a significant load on the pollutants received by the water bodies within the basin, and there is a risk of environmental water quality deterioration, medium priority. 7. The government's regulatory efforts on polluting enterprises need to be enhanced, medium priority. 8. The appeal and enforcement of planning and policies within the basin need to be improved, medium priority. Meanwhile, based on the analysis of relevance/rationale for stakeholders and relevance/rationale for the site, the site has prioritized the shared challenges from low to high. 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 the public initiatives and site's action plan.
1.6.3	*Advanced Indicator* *Future water issues shall be identified, including anticipated impacts and trends* ✓ Yes
Comment	The site analyzed the trends in population changes, agricultural, industrial, and domestic water use changes, climate, and ecological environment changes within the catchment by querying reports published by government or academic institutions. And based on research reports and WWF, WRI water risk analysis models, predictions were made for future water issues in the basin. Overall, by 2030, the shortage of water resources in the watershed can gradually intensify, and the water quality problem in the catchment will continue to exist.
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.* ✓ Yes

Comment	The site conducted a focused social impact assessment on site-related water issues and compiled a social impact assessment report, which mainly covers the following contents: 1. Description of the current situation related to site water 2. Water use and drainage patterns of the site a. Basic situation of local water resources b. Local socio-economic conditions and major water-consuming industries c. Water resource stress and other risks 3. Identification and analysis of social impacts a. Water consumption and its impact on water resource availability b. Water quality impact / Water quality and health impact c. Impact on livelihoods and socio-economic development d. Ecosystem impact e. Impact on occupational health and safety of employees 4. Stakeholder identification 5. Impact evaluation 6. Mitigation and improvement measures 7. Monitoring and evaluation
Score	4

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 four 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	The site has identified relevant catchment best practices for water governance including: • Collaborate with peer organizations and stakeholders to promote sustainable water management; • Engaging with peer organizations and stakeholders to promote water stewardship; • Participating in or promoting a catchment co-governance platform • Publicly disclose water and water quality data, and demonstrate organizational support for good water governance and sustainable management to appropriate regulatory authorities, including establishing or participating in public-private partnership projects.

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:
• Refer to the first-level (most stringent) standard for water consumption in the cleaner production audit conducted at the site;
• The water consumption per unit product has reached the advanced level of the industry water quota within the basin as published by the official authorities.
• Establish a water management system by using the digital water meter network to monitor the water consumption and trends of various departments and production lines in real-time.

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 practices for water quality, such as:
• Establishing stricter internal wastewater discharge standards than the requirements of the pollution discharge permit: The relationship between the company's internal water quality control standards and the discharge permit limits is as follows:
COD: Internal control target, 40mg/L; Permitted limit, 50mg/L
NH3-N: Internal control target, 4mg/L; Permitted limit, 5mg/L
T-P: Internal control target, 0.2mg/L; Permitted limit, 0.5mg/L
Cu: Internal control target, 0.2mg/L; Permitted limit, 0.3mg/L

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

Yes

Comment

The site has identified best practices related to Important Water-Related Areas (IWRA). Such as:
Establish a regular monitoring plan to observe any changes or impacts on IWRAs.
Install monitoring wells between the operating site and the IWRAs to serve as an 'early warning' system to detect any potential impacts the site may have on the IWRAs (such as water level or quality changes).
Support projects aimed at restoring and improving IWRAs that have been damaged in the past.
Support public awareness campaigns (such as signage) that can enhance public recognition of IWRAs and prevent actions by others that may harm IWRAs.

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
• Timely disclose the results of drinking water quality testing, maintain records, etc., to ensure that employees can obtain direct drinking water with confidence.

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 top manager of WUS. The commitment includes all the necessary elements and has been displayed on WUS' 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 top manager of WUS. The commitment includes all the necessary element and has been displayed on WUS' Website. http://www.wustec.com/files/20241010/%E5%8F%AF%E6%8C%81%E7%BB%AD%E6%B0%B4%E7%AE%A1%E7%90%86%E5%88%B6%E5%BA%A6%E4%BF%A1%E6%81%AF%E6%8A%AB%E9%9C%B2_1211.pdf	
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	WUS disclosed the information of its water management organizational structure and members of the compliance responsible team on its website. WUS has prepared its own Sustainable Water Management Manual (QM09), which defines the water management responsibilities of each department. WUS has also established a procedure to ensure the operation of WUS meet the provisions of relevant laws, regulations and other requirements, Compliance Obligations Identification and Compliance Assessment Control Procedure (QPR419).	
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	WUS has developed a water stewardship strategy and announced it on its official website. The strategy expounds WUS's long-term plan for water stewardship in terms of standardized management, corporate social responsibility and implementation of best practices, including: (1) Implement the sustainable water resource management plan in an open and transparent manner, carrying out good water resource management, sustainable water balance, and good water quality management; (2) Respect the right of every employee to have access to healthy water; (3) Encourage every employee to save water and foster awareness of sustainable development by continuous promotion and communication; (4) Encourage every employee to actively contribute ideas for energy and water conservation as well as sustainable development; Support and recognize everyone's engagement in best practices for sustainable water management, continuously optimizing company operations; (5) Focus on sustainable planning within the river basin, river basin risks, and opportunities, cooperate efficiently with external stakeholders, carry out meaningful actions, and build a healthy ecological culture and good water management mechanisms; (6) Disclose the progress of the implementation of the sustainable water resource management plan to all relevant parties.	
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	WUS has developed a Water Stewardship Plan (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: • Improve staff's water management awareness through training • Improve the indirect water use performance of the site by carrying out water management training for suppliers and promoting them to remove IPE violation records • Through continuous process improvement, water use per unit products (convert into double-sided board) in 2024 was less than 0.4 m3/m2. •The quality of the discharged wastewater meets 100% of the internal control requirements of the site, and the wastewater internal control index of WUS is lower than the wastewater discharge permit requirements. • Use WBCSD to evaluate the WASH of the site and the final result received 90%. • Invited a third party to monitor the water quality of Wusongjiang River which the rainwater and industrial wastewater of the site discharged to and trust external agencies to test the water quality quarterly. • Organized clean water activity with at least two stakeholders each year.	
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	1. On September 28, 2024, WUS as an organizer combined Kunshan Water Affair Bureau, organized 'river patrol' and 'river cleaning' activity in Loujiang river, with 1 brother company and 2 suppliers, totally 35 persons attended the activity. 2. On July 26, 2024, WUS organized the water weed and reed clearance activity in the Wusongjiang River with 2 service providers, totally 13 persons attended the activity. 3. On December 12, 2024, WUS installed wash liquid equipment and provided wash liquid in the public toilet in neighbor community and posted hand washing process on the wall. 4. WUS attended AWS Impact Accelerator project of Wusongjiang River and shared its water management experience in the meeting on January 26, 2024.
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	In November 2024, WUS organized a sharing seminar on sustainable water stewardship to share its experience in carrying out AWS with brother company in another catchment and promoted them to conduct water protection activity with local government. In May 2024, WUS participated in a sustainable water stewardship activity which organized by customer and attend the activity to clean up garbage, lake patrol and beaches building at Qiandao Lake in Hangzhou.
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.

Yes

Comment	WUS communicates its sustainable Water Stewardship Plan with various stakeholders through face to face, email and questionnaires, including local government and enterprises, clients, suppliers, employees and etc. WUS has communicated with suppliers regarding its indirect water use targets, such as taking action to provide feedback and remove environmental violation records on the IPE platform and disclosing carbon emission information on the IPE platform. These targets have reached a consensus with stakeholders, especially suppliers. WUS signed an agreement with the River and Lake Management Office of Kunshan City Water Affairs Comprehensive Management Center on 'Practicing Sustainable Water Management and Pairing Party Organizations for Joint Construction', establishing a cooperative relationship. They agreed to conduct activities together, such as carry out educational and publicity activities related to water management knowledge, organize relevant parties to participate in water-related activities, conduct river patrol and water protection actions, and establish a mechanism for basin-wide co-governance. WUS has participated in AWS Impact Accelerator (2024 Wusongjiang Catchment), discussed the catchment status, stakeholder engagement, sustainable water management in the meeting and seek collaborative solutions to common water challenges. The water affair bureau had introduced the reclaimed water from municipal wastewater plant reuse project to WUS, they discussed the water reuse condition, infrastructure and etc. WUS agreed the project and would introduce the reclaimed water if the water quality meet the production requirement, the infrastructure would be installed by the local government.
Score	7

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	WUS has established Emergency environmental emergency plan, it states the emergency environmental emergency process and business continuity strategy, the content covers chemical leakage, wastewater, solid waste, emergency shutdown, water shutdown, power outage, gas shutdown, storm weather emergency environment, etc. The emergency plan had been registered in Kunshan City Ecological and Environmental Bureau. WUS has identified its water risks, 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.

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. WUS actively cooperates with the government supervision department to conduct supervisory inspections and visits and attend the meetings organized by government.
2. WUS invited a third agency to monitor the water quality once a year of Wusongjiang River (the receiving water body of its rainwater and industrial wastewater) and send the reports to local government.
3. WUS has installed an online monitoring device to monitor its industrial wastewater in real time, and regularly entrusts a third-party agency to test its industrial wastewater, domestic wastewater and rainwater.
4. WUS shared their AWS system with main suppliers, such as material suppliers, wastewater treatment service provider and etc.
5. WUS has established a procedure to ensure the operation of WUS to meet the provisions of relevant laws, regulations and other requirements. And conducts compliance evaluation on laws and regulations every six month and keeps records.
6. On February 29-March 1, 2024, 2 employees were invited to participated in a two-days' AWS Standard System Training and obtained the completion certificate.

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

WUS collects local law and regulation requirements, industry norms, customer requirements and other compliance requirements, from which it identifies the applicable provisions and compiles them into an Environmental Compliance Obligation Checklist. WUS evaluates itself based on the compliance requirements it collects, and from the results of the evaluation, WUS meets the compliance requirements.
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. WUS has developed its own Sustainable Water Management Manual (QM09), to standardize its water management activities.
2. WUS 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. On February 29-March 1, 2024, 2 employees were invited to participated in a two-days' AWS Standard System Training and obtained the completion certificate.

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. ✓ Yes

Comment	WUS has made positive contributions to its own water management and the water management of the watersheds in which it operates and has received many awards. In November 2022, WUS has obtained Suzhou City the Sixth Batch Water Efficiency Leader. In December 2023, WUS was awarded the honor of Jiangsu Province the forth Batch Water Efficiency Leader Finalist. In April 2024, WUS has obtained CDP Water Safety Leader Awards (A Level). In August 2019, WUS has passed the cleaner production audit and on October 10, 2024, and finished the mid-term review of cleaner production evaluation technology review.
Score	2

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	WUS collects local law and regulation requirements, industry norms, customer requirements and other compliance requirements, from which it identifies the applicable provisions and compiles them into an Environmental Compliance Obligation Checklist. WUS has established a Compliance Obligations Identification and Compliance Assessment Control Procedure (QPR419), which provides for the evaluation of compliance on a semi-annually basis and provides updated assessment forms and assessment reports. According to IPE 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

WUS has established a procedure to ensure the operation of WUS meet the provisions of relevant laws, regulations and other requirements.
WUS timely obtains updated information on laws and regulations quarterly 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 industrial wastewater, discharge domestic wastewater, rainwater, surface water, groundwater, soil to ensure that the drainage water quality and pollutant concentrations in groundwater and soil meet the requirements of laws and regulations. A brief summary of monitoring point information and monitoring frequency is as follows:
• Discharged industrial wastewater
1. WUS has established water quality pollution management regulations, which include monitoring requirements for discharged industrial water quality, including parameters and frequency.
2. WUS has invited a third party to monitor the parameters (SS, TN, Fluoride, Formaldehyde, Ag, Mn, Tin, Zn, Anionic surfactant, TOC, petroleum) every month and installed online monitoring facilities at the industrial wastewater discharge outlet to monitor the parameters (pH, COD, Cu, Ni, NH3-N, TP) of the discharged wastewater in real time.
•Discharge domestic wastewater
WUS has invited a third party to monitor the parameters (pH, SS, BOD5, COD, NH3-N, TN, TP) of discharged domestic wastewater every year.
• Rainwater discharge
WUS has invited a third party to monitor the parameters (pH, TP, SS, COD) of rainwater and installed an online monitoring device at the rainwater outlet to monitor the pH of rainwater in real-time.
•Environmental water quality
Groundwater monitoring: 13 monitoring points have been set up in the site area, WUS has invited a third party to monitor the parameters (pH, Cyanide, Cu, Fluoride, Hexavalent chromium, Petroleum hydrocarbons) yearly.
Soil monitoring: 4 monitoring points have been set up in the site area, WUS has invited a third party to monitor the parameters (pH, Cyanide, Cu, Fluoride, Hexavalent chromium, Petroleum hydrocarbons and normal parameters in GB/T14848) yearly.

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 The site has developed a Water Stewardship Plan (Year 2024) improvement action list, which specifies targets, required actions, measurement, status, effectiveness evaluation, accountable and deadline, etc.
1. WUS has set targets for fresh water use amount was less than 2,820,000 m3 and the site tracks its fresh water use amount on a monthly basis.
2. WUS has set an annual target of industrial water reuse rate was more than 60% and tracks the progress of its industrial water reuse rate on a quarterly basis.
3. WUS had set an annual target of water use per unit products (convert into double-sided board) was 0.4 m3/m2 and tracks the water use per unit products (convert into double-sided board) on a monthly basis
According to the data statistics and analysis records provided by the site,
1. Annual total water use amount: 1,781,546 m3 in 2022; 1,841,441 m3 in 2023; 1,982,379 m3 until to September 2024.
2. Industrial water reuse rate: 66.10% in 2022; 68.02% in 2023; 66.5% in Q1 2024; 67.2% in Q2 2024 and 67.8% in Q3 2024.
3. Water use per unit products (convert into double-sided board): 0.277 m3/m2 in 2022; 0.281 m3/m2 in 2023; 0.256 m3/m2 until to September 2024.

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

Comment The site has developed a Water Stewardship Plan (Year 2024) improvement action list, which specifies targets, required actions, measurement, status, effectiveness evaluation, accountable and deadline, etc.
1. WUS has set targets for fresh water use amount was less than 2,820,000 m3 and the site tracks its fresh water use amount on a monthly basis.
2. WUS has set an annual target of industrial water reuse rate was more than 60% and tracks the progress of its industrial water reuse rate on a quarterly basis.
3. WUS had set an annual target of water use per unit products (convert into double-sided board) was 0.4 m3/m2 and tracks the water use per unit products (convert into double-sided board) on a monthly basis
WUS has developed a proposal for improving water balance in 2024, with a total of 8 improvement measures approved, involving topics such as optimizing production processes to save water consumption and improve wastewater utilization, such as:
1. Use Horizontal LB line instead of traditional vertical plating line in chemical copper plating line to reduce the water use;
2. Optimize the purity water treatment facility (UF facility) to improve the purity water promotion;
3. Installed 2 sets of sand carbon filter treatment system to improve reuse rate of reclaimed water;
4. Replace the RO membrane of the reclaimed water system.
5. Cooling tower overflow control Use solenoid valve control to control the cooling tower overflow.
According to the data statistics and analysis records provided by the site,
1. Annual total water use amount: 1,781,546 m3 in 2022; 1,841,441 m3 in 2023; 1,982,379 m3 until to September 2024.
2. Industrial water reuse rate: 66.10% in 2022; 68.02% in 2023; 66.5% in Q1 2024; 67.2% in Q2 2024 and 67.8% in Q3 2024.
3. Water use per unit products (convert into double-sided board): 0.277 m3/m2 in 2022; 0.281 m3/m2 in 2023; 0.256 m3/m2 until to September 2024.

3.3.3 *Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.* Yes

Comment	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. WUS has developed a water quality monitoring plan and commissioned third-party laboratories to test the water quality of various sources, including drinking water, discharged water, groundwater, soil, and upstream and downstream water quality of river which the rainwater discharged to. 2. WUS has installed a series of online water quality detection systems to monitor inflow and outflow in real-time, such as monitoring CI (conductivity) at the tap water inlet, to ensure that the incoming water meets the water quality requirements of the WUS pure water preparation system; Monitor pH, COD, Cu, Ni, NH3-N, TP at the total industrial wastewater discharge outlet; Monitor pH at the rainwater outlet. 3. WUS has formulated the operation standards of industrial wastewater treatment facilities to standardize the wastewater treatment process and has kept the daily operation and maintenance records for tracking the operation status of wastewater treatment facilities. 4. WUS has developed a management procedure for pollutant concentration in 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: NH3-N 4.0 mg/L; COD 40 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.2 mg/L (Permit requirements: Discharge Standard of Water Pollutants for the Electronic Industry GB 39731-2020 and Limits of Main Water Pollutants Discharge for Urban Wastewater Treatment Plants and Key Industrial Sectors in the Taihu Lake Area DB32/1072-2018: COD 50mg/L; Cu 0.3 mg/L; Fluoride 10 mg/L; TOC: 30 mg/L; TN 15 mg/L; petroleum 5 mg/L; PH 6.0-9.0; TP 0.5 mg/L; anion surfactant 5 mg/L; SS 70 mg/L; NH3-N 5 mg/L; Ni: 0.5 mg/L; Ag 0.3 mg/L). 5. WUS has set a target that the has also set an annual target of the total wastewater discharged amount was less than 0.42 m3 per unit product (convert into double-sided board) to address the shared water challenges within the catchment. WUS monitors the total wastewater discharged and has developed a series of implementation plans. The site tracks the progress of its Water Stewardship targets regularly. 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. WUS has developed a management procedure for pollutant concentration in 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: NH3-N 1.0 mg/L; COD 20 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.1 mg/L and achieving 100% of the internal control targets by 2023 and 2024. WUS has strengthened the operation and maintenance of wastewater system to ensure that the quality of wastewater reaches the set standard stably and optimize the waste recycle system to improve the reuse rate of wastewater. The wastewater discharged amount per unit product (convert into double-sided board) was 0.164 m3/m2 in 2022, 0.171 m3/m2 in 2023, 0.146 m3/m2 until to September 2024.	

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

Comment

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. WUS has developed a water quality monitoring plan and commissioned third-party laboratories to test the water quality of various sources, including drinking water, discharged water, groundwater, soil, and upstream and downstream water quality of river which the rainwater discharged to.
2. WUS has installed a series of online water quality detection systems to monitor inflow and outflow in real-time, such as monitoring CI (conductivity) at the tap water inlet, to ensure that the incoming water meets the water quality requirements of the WUS pure water preparation system; Monitor pH, COD, Cu, Ni, NH3-N, TP at the total industrial wastewater discharge outlet; Monitor pH at the rainwater outlet.
3. WUS has formulated the operation standards of industrial wastewater treatment facilities to standardize the wastewater treatment process and has kept the daily operation and maintenance records for tracking the operation status of wastewater treatment facilities.
4. WUS has developed a management procedure for pollutant concentration in 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: NH3-N 4.0 mg/L; COD 40 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.2 mg/L (Permit requirements: Discharge Standard of Water Pollutants for the Electronic Industry GB 39731-2020 and Limits of Main Water Pollutants Discharge for Urban Wastewater Treatment Plants and Key Industrial Sectors in the Taihu Lake Area DB32/1072-2018: COD 50mg/L; Cu 0.5 mg/L; Fluoride 10 mg/L; TOC: 30 mg□L; TN 15 mg/L; petroleum 5 mg/L; PH 6.0-9.0; TP 0.5 mg/L; anion surfactant 5 mg/L; SS 70 mg/L; NH3-N 5 mg/L; Ni: 0.5 mg/L; Ag 0.3 mg/L).
5. WUS has set a target that the has also set an annual target of the total wastewater discharged amount was less than 0.4 m3 per unit product (convert into double-sided board) to address the shared water challenges within the catchment. WUS monitors the total wastewater discharged and has developed a series of implementation plans. Including: optimizing the ETP treatment process and add the wastewater reuse rate.
The site tracks the progress of its Water Stewardship targets regularly.
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.
WUS has developed a management procedure for pollutant concentration in 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: NH3-N 1.0 mg/L; COD 20 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.1 mg/L and achieving 100% of the internal control targets by 2023 and 2024.
WUS has strengthened the operation and maintenance of wastewater system to ensure that the quality of wastewater reaches the set standard stably and optimize the waste recycle system to improve the reuse rate of wastewater. The wastewater discharged amount per unit product (convert into double-sided board) was 0.164 m3/m2 in 2022, 0.171 m3/m2 in 2023, 0.146 m3/m2 until to September 2024.

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	There are no Important Water-Related Areas in the site. Although there are no IWRAs within the WUS site, there is a great deal of concern about the status of IWRAs in the catchment and some effort has been made. For example: WUS has developed a yearly river patrol program and organizes staff to patrol the river. In addition, WUS also pays attention to IWRAs outside the catchment. WUS participated in a water environment protection exchange jointly organized by customers in May 2024 at Qiandao Lake in Hangzhou, the activities included cleaning up garbage, lake patrol and build beaches building, wetland building and etc. WUS trusts external agencies to test the surface water quality quarterly (test parameters include pH, COD, NH3-N, TP, SS, Cyanide, BOD5, Cu, Ni, a total of 9 parameters) according to the national standard: Surface Water Environmental Quality Standard GB 3838-2002 Table 1 IV level; WUS also invited a third party to monitor groundwater and soil in the site yearly. On September 28, 2024, WUS as an organizer combined Kunshan Water Affair Bureau, organized 'river patrol' and 'river cleaning' activity in Loujiang river, with 1 brother company and 2 suppliers, totally 35 persons attended the activity. On July 26, 2024, WUS organized the water weed and reed clearance activity in the Wusongjiang River with 2 service providers, totally 13 persons attended the activity.	
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. The site conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 100%. 3. The site carried out a questionnaire survey on employee satisfaction regarding drinking water, sanitation, and facilities, and according to the survey results, the satisfaction was about high. 4. The site conducted regular testing of drinking water and secondary water supply to ensure safe drinking water. 5. Sanitation and hygiene installations were checked and cleaned daily, water purifiers were checked daily and maintained when needed.	
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	In August 2024, WUS supported the renovation of drinking water and washing liquid to local Sanitation Station within the catchment. On December 12, 2024, WUS installed wash liquid equipment and provided wash liquid in the public toilet in neighbor community. Free drinking water points are set up at the security kiosk at the south gate for outdoor workers to drink. Nearby outdoor workers, including sanitation workers, express delivery personnel, etc.	
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 site 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 use targets have been set in the water stewardship plan. 1. WUS has screened suppliers /service providers' IPE violation records and promoted them to provide feedback to the IPE platform (a well-known environmental information disclosure platform in China) and remove the violation records, in 2024, WUS promoted two suppliers to remove the violation records. 2. The site conducts on-site audits of its hazardous waste treatment service providers every year, covering topics related to environmental management. In 2024, the site conducted on-site audit on 22 hazardous waste treatment service providers. For the findings found during the audit, the site will promote the suppliers to follow up and rectify them.	
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. 1. WUS provided AWS training to vendors on July 30, 2024 to encourage them to focus on their own water management status. 2. WUS has screened suppliers /service providers' IPE violation records and promoted them to provide feedback to the IPE platform (a well-known environmental information disclosure platform in China) and remove the violation records, in 2024, WUS promoted two suppliers to remove the violation records. 3. The site conducts on-site audits of its hazardous waste treatment service providers every year, covering topics related to environmental management. In 2024, the site conducted on-site audit on 22 hazardous waste treatment service providers. For the findings found during the audit, the site will promote the suppliers to follow up and rectify them.	

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	Indirect water use targets have been set in the water stewardship plan. 1. WUS has screened suppliers /service providers' IPE violation records and promoted them to provide feedback to the IPE platform (a well-known environmental information disclosure platform in China) and remove the violation records, in 2024, WUS promoted two suppliers to remove the violation records. 2. The site conducts on-site audits of its hazardous waste treatment service providers every year, covering topics related to environmental management. In 2024, the site conducted on-site audit on 22 hazardous waste treatment service providers. For the findings found during the audit, the site will promote the suppliers to follow up and rectify them. 3. WUS had promoted 13 suppliers to disclose the PRTR data and carbon emission data. 4. WUS provided AWS training to vendors on July 30, 2024 to encourage them to focus on their own water management status. All actions taken by the site were applied to suppliers both within and outside the catchment and are not limited to catchment areas.	
Score	7	
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	The site actively cooperates with the government supervision department to conduct supervisory inspections and visits. The site keeps close contact with local water-related infrastructure owners through many ways such as WeChat 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. WUS has developed its own Sustainable Water Management Manual (QM09), to standardize its water management activities. 2. WUS 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. On February 29-March 1, 2024, 2 employees were invited to participated in a two-days' AWS Standard System Training and obtained the completion certificate.	
3.9.2	*Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.*	Yes

Comment	1. WUS has set an annual target of industrial water reuse rate was more than 60%, which meet Level 1 cleaner production standards for industrial water reuse rate. 2. WUS had set an annual target of water use per unit products (convert into double-sided board) was 0.4 m3/m2 and tracks the water use per unit products (convert into double-sided board) on a monthly basis, which meet the Level 1 standard of PCB product in " Water Quota for Forestry, Animal Husbandry, Fishery, Industry, Service Industry, and Domestic Use in Jiangsu Province (Revised in 2019)" WUS has developed a proposal for improving water balance in 2024, with a total of 8 improvement measures approved, involving topics such as optimizing production processes to save water consumption and improve wastewater utilization, such as: 1. Use Horizontal LB line instead of traditional vertical plating line in chemical copper plating line to reduce the water use; 2. Optimize the purity water treatment facility (UF facility) to improve the purity water promotion; 3. Installed 2 sets of sand carbon filter treatment system to improve reuse rate of reclaimed water; 4. Replace the RO membrane of the reclaimed water system. 5. Cooling tower overflow control Use solenoid valve control to control the cooling tower overflow.

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

Comment	1. WUS has developed a management procedure for pollutant concentration in 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: NH3-N 4.0 mg/L; COD 40 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.2 mg/L (Permit requirements: Discharge Standard of Water Pollutants for the Electronic Industry GB 39731-2020 and Limits of Main Water Pollutants Discharge for Urban Wastewater Treatment Plants and Key Industrial Sectors in the Taihu Lake Area DB32/1072-2018: COD 50mg/L; Cu 0.5 mg/L; Fluoride 10 mg/L; TOC: 30 mg/L; TN 15 mg/L; petroleum 5 mg/L; PH 6.0-9.0; TP 0.5 mg/L; anion surfactant 5 mg/L; SS 70 mg/L; NH3-N 5 mg/L; Ni: 0.5 mg/L; Ag 0.3 mg/L). 2. WUS has set a target that the has also set an annual target of the wastewater discharged amount was less than 0.42 m3 per unit product (convert into double-sided board), which meet Level 1 cleaner production standards for the wastewater discharged amount per unit product. WUS monitors the total wastewater discharged and has developed a series of implementation plans. Including: optimizing the ETP treatment process and add the wastewater reuse rate.

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

Comment	1. WUS trusts external agencies to test the water quality quarterly (test parameters include pH, COD, NH3-N, TP, SS, Cyanide, BOD5, Cu, Ni, a total of 9 parameters) according to the national standard: Surface Water Environmental Quality Standard GB 3838-2002 Table 1 IV level; 2. WUS also invited a third party to monitor groundwater and soil in the site yearly. 3. On September 28, 2024, WUS as an organizer combined Kunshan Water Affair Bureau, organized 'river patrol' and 'river cleaning' activity in Loujiang river, with 1 brother company and 2 suppliers, totally 35 persons attended the activity. 4. On July 26, 2024, WUS organized the water weed and reed clearance activity in the Wusongjiang River with 2 service providers, totally 13 persons attended the activity.

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. WUS conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 94%. 3. WUS carried out a questionnaire survey on employee satisfaction regarding drinking water, sanitation, and facilities, and according to the survey results, the satisfaction was high. 4. WUS conducted regular testing of drinking water and secondary water supply to ensure safe drinking water. 5. WUS has checked and cleaned sanitation and hygiene installations daily and checked water purifiers daily and maintained when needed.

3.9.6 *Advanced Indicator*
Achievement of identified best practice related to targets in terms of good water governance shall be quantified.

Yes

Comment	WUS’s good performance in water governance has received many honors and recognition from governmental departments. In November 2022, WUS had obtained Suzhou City the Sixth Batch Water Efficiency Leader. In April 2024, WUS had obtained CDP Water Safety Leader Awards (A Level). In August 2019, WUS had passed the cleaner production audit and on October 10, 2024 finished the mid-term review of cleaner production evaluation technology review
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 1. WUS has set an annual target of industrial water reuse rate was more than 60. 2. WUS had set an annual target of water use per unit products (convert into double-sided board) was 0.4 m3/m2 and tracks the water use per unit products (convert into double-sided board) on a monthly basis. WUS has developed a proposal for improving water balance in 2024, with a total of 8 improvement measures approved, involving topics such as optimizing production processes to save water consumption and improve wastewater utilization, such as: 1. Use Horizontal LB line instead of traditional vertical plating line in chemical copper plating line to reduce the water use; 2. Optimize the purity water treatment facility (UF facility) to improve the purity water promotion; 3. Installed 2 sets of sand carbon filter treatment system to improve reuse rate of reclaimed water; 4. Replace the RO membrane of the reclaimed water system. 5. Cooling tower overflow control Use solenoid valve control to control the cooling tower overflow. According to the data statistics and analysis records provided by the site, 1. Industrial water reuse rate: 66.5% in Q1 2024; 67.2% in Q2 2024 and 67.8% in Q3 2024, which meet Level 1 cleaner production standards for industrial water reuse rate. 3. Water use per unit products (convert into double-sided board): 0.256 m3/m2 until to September 2024 which meet the Level 1 standard of PCB product in " Water Quota for Forestry, Animal Husbandry, Fishery, Industry, Service Industry, and Domestic Use in Jiangsu Province (Revised in 2019)"
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. WUS has developed a management procedure for pollutant concentration in 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: NH3-N 4.0 mg/L; COD 40 mg/L; TP 0.2 mg/L; PH 6.0-9.0; Cu 0.2 mg/L (Permit requirements: Discharge Standard of Water Pollutants for the Electronic Industry GB 39731-2020 and Limits of Main Water Pollutants Discharge for Urban Wastewater Treatment Plants and Key Industrial Sectors in the Taihu Lake Area DB32/1072-2018: COD 50mg/L; Cu 0.5 mg/L; Fluoride 10 mg/L; TOC: 30 mg/L; TN 15 mg/L; petroleum 5 mg/L; PH 6.0-9.0; TP 0.5 mg/L; anion surfactant 5 mg/L; SS 70 mg/L; NH3-N 5 mg/L; Ni: 0.5 mg/L; Ag 0.3 mg/L). 2. WUS has set a target that the has also set an annual target of the wastewater discharged amount was less than 0.42 m3 per unit product (convert into double-sided board), which meet Level 1 cleaner production standards for the wastewater discharged amount per unit product. According to the data statistics and analysis records provided by the site, the wastewater discharged amount per unit product (convert into double-sided board) was 0.146 m3/m2 until to September 2024 which meet Level 1 cleaner production standards for the wastewater discharged amount per unit product. 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.	
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	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. The WASH installations fully comply with the national "Hygienic Standards for the Design of Industrial Enterprises" (GBZ 1-2010). 2. WUS conducts WBCSD self-assessment to evaluate the level of onsite WASH and the final result was 94%. 3. WUS carried out a questionnaire survey on employee satisfaction regarding drinking water, sanitation, and facilities, and according to the survey results, the satisfaction was high. 4. WUS conducts testing of drinking water every year to ensure safe drinking water. 5. WUS has checked and cleaned sanitation and hygiene installations daily and checked water purifiers daily and maintained when needed. In addition, Luxcase has also set up a variety of channels to collect employees' opinions and suggestions on their WASH and follow up these feedback in a timely manner, such as: • The site conducts an employee satisfaction survey through questionnaires every year, summarizes and analyzes the survey results, and develops an action plan based on employee feedback. • The site conducts satisfaction survey for the employee restaurant regularly, and the employees can feedback their opinions on the restaurant hygiene, food safety and other aspects at any time.	
Score	4	

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

Comment	On January 26, 2024, WUS shared its water management experience on AWS Impact Accelerator project in Wusongjiang River. On March 19, 2024, Kunshan High-tech Zone shared WUS's water saving management on its official account of WeChat.
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	1. On September 28, 2024, WUS as an organizer combined Kunshan Water Affair Bureau, organized 'river patrol' and 'river cleaning' activity in Loujiang river, with 1 brother company and 2 suppliers, totally 35 persons attended the activity. 2. On July 26, 2024, WUS organized the water weed and reed clearance activity in the Wusongjiang River with 2 service providers, totally 13 persons attended the activity. 3. On December 12, 2024, WUS installed wash liquid equipment and provided wash liquid in the public toilet in neighbor community and posted hand washing process on the wall.
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 December 13, 2024 to summarize the overall environmental performance in 2023 and Q1-Q3 2024, and the environmental performance in was summarized, which included water stewardship review and check each performance of targets in the plan. The water stewardship plan was modified during the action period, and the site provided the latest version. For example, the target for freshwater use was adjusted in July 2024 due to increased production, which required a higher volume of freshwater.	
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, WUS implemented a total of 8 water-saving projects in 2023, including increasing the proportion of recycled water and reduce the water use of boiler and cool tower. As of 2023, WUS has reduced water consumption by 220,400 tons and reduced water costs by 1,064,400 yuan RMB. In 2024, WUS has reduced water consumption by 28,640 tons per month and had reduced water cost by 114,560 yuan RMB.	
4.1.3	*The shared value benefits in the catchment shall be identified and where applicable, quantified.*	Yes
Comment	The shared value benefits in the catchment are identified, such the 'river bank cleaning' activities, publicity, promoted the public' awareness of water protection, improve the catchment environment and promoted the WASH condition.	
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. Wu Chuanlin, the CEO of WUS attended the management review of environmental performance in December 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.*	Yes
Comment	WUS communicates its sustainable water management performance with various stakeholders through symposiums, interviews, and questionnaires, including local government, wastewater treatment infrastructure, water supply infrastructure, communities, other surrounding enterprises, suppliers, employees regarding its water stewardship performance for 2023.	
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	WUS has developed a '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 process, and once a year the AWS Leader meets with management to set goals for the upcoming year and evaluate the previous year's performance.	

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, and communication on sustainable water management issues on its official Website. http://www.wustec.com/newsdetail.php?id=95	
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 has communicated its water stewardship plan with stakeholders through questionnaires, interviews, and other forms, including how the water stewardship plan contributes to the outcomes of the AWS Standard.	
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 2023, including quantified performance against targets on its official Website. http://www.wustec.com/newsdetail.php?id=95	
5.3.2	*Advanced Indicator* *The site's efforts to implement the AWS Standard shall be disclosed in the organization's annual report.*	N/A
Comment	The facility does not perform this indicator.	
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 effort to address shared water challenges on its official website. http://www.wustec.com/newsdetail.php?id=95	
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 communication on sustainable water management issues on its official website. The site advocates for stakeholder participation through various means, such as conducting surveys, visiting stakeholders, and initiating joint actions with stakeholders.	
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.	

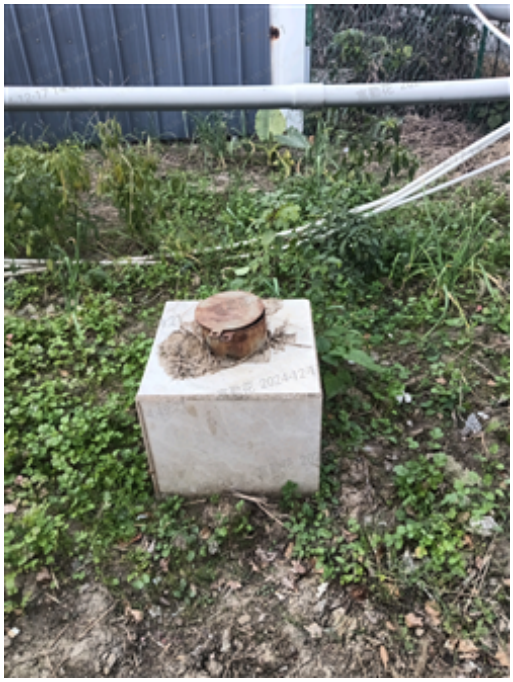
Photographic Evidence from Audit

Yes

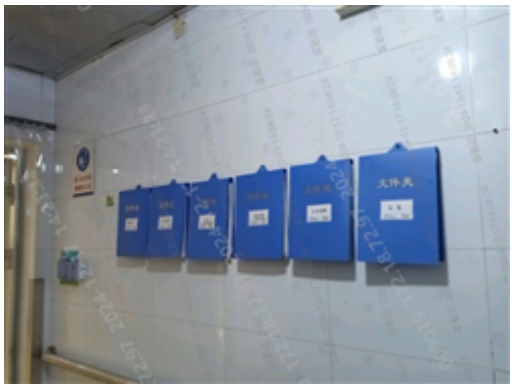
The hazardous chemicals warehouse.jpg

Industrial wastewater discharge point.jpg

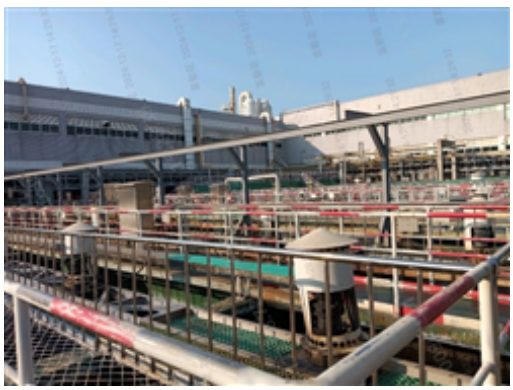
Non-hazardous waste storage area.jpg



Groundwater sampling point.jpg

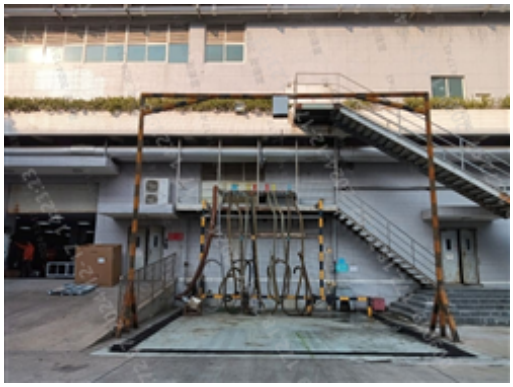


Kitchen inspection records.jpg



Waste water treatment station.jpg

Dining area .jpg



Waste liquid unloading area.jpg

Hazardous waste storage area.jpg

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