



Alliance for Water Stewardship Assessment Report

Prepared for Perrier Vittel (Thailand) Ltd.

Prepared by: SGS
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REPORT DETAILS

REFERENCE	AWS.2017.067
CLIENT REFERENCE	Mr. Chaiyasak Phongsaphan
REPORT TITLE	ALLIANCE FOR WATER STEWARDSHIP ASSESSMENT REPORT
DATE SUBMITTED:	17 th August 2018
CLIENT:	Perrier Vittel (Thailand) Ltd. 41/1 Moo 5 Phosamton Bangpahan Ayutthaya 13220
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1 EXECUTIVE SUMMARY

The scope of services covers the conformity assessment of water use in compliance with the AWS International Water Stewardship Standard Standard Version 1 for Perrier Vittel (Thailand) Ltd., Ayutthaya factory in 41/1 Moo 5 Phosamton Bangpahan Ayutthaya in Thailand. The assessment has been completed in compliance with the AWS Certification requirements, Version 1 dated July 2015.

Perrier Vittel (Thailand) Ltd., Ayutthaya factory is part of the Nestlé Waters Group. The factory produces purified water and natural mineral water, bottled in 4 different sizes(330 ml, 600 ml, 1.5 l and 6 l) and HOD containers (Home Office Delivery).

On July 24th 2018, SGS Thailand. (hereinafter referred to as “SGS”) conducted the site site audit. A total of eleven findings were raised during the the audit process, three major non-conformities, two minor non-conformitiesand five opportunity improvements.

The audit team was composed as follows:

Kasamol Sansanakul	Lead Auditor	AWS certified auditor, with more than 10 years experience in environmental due diligence, impact assessment and lead auditor for verification of GHG projects and inventories.
Nattarin Thunsiri	Local assessor	AWS certified auditor, with more than 15 years experience in environmental due diligence, impact assessment and lead auditor for verification of GHG projects and inventories.
Pitipoom Tungsirisuteekul	Observer, Trainee	Experienced GHG lead auditor for validation and verification of CDM projects and senior environmental expert in risk assessment.

Perrier Vittel (Thailand) Ltd. provided root cause analysis and action plans for all major and minor non conformities. It also supplied evidence that all major and minor corrective actions had already been implemented. As a result, the findings have all been closed.

Given the review of evidence produced and the site visit inspection , SGS recommends that Perrier Vittel (Thailand) Ltd., Ayutthaya factory is awarded the AWS Core Certified status with annual surveillance audits.

2 SCOPE OF ASSESSMENT

The scope of services covers the conformity assessment of water use in compliance with the AWS International Water Stewardship Standard Standard Version 1 for the Perrier Vittel (Thailand) Ltd., Ayutthaya factory. The assessment has been completed in compliance with the AWS Certification requirements, Version 1 dated July 2015.

Perrier Vittel (Thailand) Ltd., Ayutthaya factory is part of Nestlé Water Group. The factory produces purified water and natural mineral water, bottled in 4 different sizes(330 ml, 600 ml, 1.5 l and 6 l) and HOD containers (Home Office Delivery).

The raw water used for the process is abstracted from 4 boreholes (DW#2, DW#3, DW#4 and DW#5) located on the site. Table 2.1 provides details on the site water user licenses for the 4 boreholes.

Table 2.1: Water user licenses details

Borehole Reference	License No.	Drilled Depth (m bgl)	Current Yield (m ³ /month)*	GPS Coordinates	
				X	Y
DW#2	3904-0032	150	9,325	666521 E	1595780 N
DW#3	4704-0001	408	28,153	666531 E	1595757 N
DW#4	735104-0006	380	20,069	666367 E	1595850 N
DW#5	735304-0004	372	32,031	666200 E	1595750 N

* Note: The statistical data in 2017 were used.

SGS carried out the site audit of Perrier Vittel (Thailand) Ltd., Ayutthaya factory on 24th July 2018. Mr. Chaiyasak Phongsaphan, water resources manager met with the audit team and accompanied the team around the site to inspect the water pumping house, the production line, the wastewater treatment plant and the wastewater outlet.

Table 2.2 photos of Perrier Vittel (Thailand) Ltd., Ayutthaya factory



Deep well house (new style)



Deep well house (old style)



Water Flow Meter Installed in Deep Well House



Wastewater discharge point



Site's receiving water body (Klong Dan)



Chemical storage room



Flooding pumps



Drinking water for employees

3 STAKEHOLDERS' INTERVIEWS

The interviews with stakeholders were held at the factory's office. Moo 4 village headman, Mr. Pattanakhiat Preepram and Moo 5's villager, Mr. Sommart Prachakornkhiat attended the meeting. Moo 4 and Moo 5 are located in the immediate outskirts of the factory. Both stakeholder explained that they saw the AWS stakeholder meeting announcement on the community board and that were also notified by the factory. The factory provides information on the AWS and on the shared water challenges to both villages during communities meeting.

Usage water is from groundwater and canal. The water is stored in the community's storage tank and goes through the filter system before it is distributed to households. Consumption water quality is sampled and monitored monthly by the factory. The analysis results are reported and explained during communities' meetings. The treated wastewater outlet is located on Moo 5 village side and , and the wastewater in the canal is used for watering gardens and trees. Drinking water is bought from local shops. The factory provides drinking water for special events and communities' meeting. The stakeholders did not express any concern with regards to the factory's operation.

In the afternoon of the audit day, another meeting was held at Sub-district level with the Administration Organization (SAO)'s Office and the governance center's office in Ayutthaya. Ms. Orrawan Panthong, Chief Administrator of the SAO and Mr. Phaibul Puthong, Director of Water Resources, Ayutthaya Provincial Office for Natural Resources and Environment were present. Both agencies represent the catchment authority: SAO is responsible for water quality and the Office for Natural Resources and Environment is responsible for licensing and groundwater usage.

During the meeting, the catchment authorities confirmed they had received both by email and via a phone call the plant's water stewardship objectives. The catchment authorities confirmed that the plant followed the national strategic plan for water conservation thus contributing to the catchment objectives. The plant provides SAO with the results of waste water analysis on a monthly basis and these have always been within the Thai National Standard. Another good example of cooperation with SAO has been evidenced through the acceptance of a request dated 03/06/2016 asking the plant to discharge wastewater into the nearby canal to the benefit of agricultural farms nearby during dry season¹. Also, the plant shared their study on high chloride content in groundwater for further governance improvement.

¹ REF.027 Request from catchment authority to use wastewater for agricultural purpose

4 DESCRIPTION OF CATCHMENT

Perrier Vittel (Thailand) Ltd., Ayutthaya factory is located in the middle part of Chao Phraya Basin. The Chao Phraya Basin catchment area covers over 20,523.42² km². The basin connects with:

- North: Ping basin and Nan basin;
- South: gulf on Thailand;
- West: Tha Chin basin and Sakae Krang basin;
- East: Pasak basin and Bang Pla Kong basin.

The Chao Phraya River is the main river of the Chao Phraya basin and the most important sub-basins are the Noi river, the Suphanburi river, the Tha Chin river and the Lopburi river. The river originates in the northern mountains of Thailand³.

The Chao Phraya basin has traditionally been a crucial waterway for the transport of goods such as teak and rice and a source of essential ecosystem services for local populations. In 2003, the basin was home to 40% of Thailand's population and was central to the economic activity of 78% of the national workforce, which contributed to 66% of the national GDP⁴.

The basin can be divided into 3 parts; upper, middle, and lower. Very little agricultural or industrial activity occurs in the upper part of the basin. Although according to a UN report⁵, encroachment and land use change are negatively affecting the upper part of the basin. Most of the agricultural activity is concentrated in the middle basin. The lower basin consists mainly of agricultural and urban areas⁶, but is also home to industrial estates and greater industrialisation as compared to the other parts of the basin.

Most of the the Chao Phraya basin's pollution stems from agriculture, industry and urbanisation. Water quality in the upper part of the basin is generally considered satisfactory, but is degrading downstream, at an unsustainable pace. Many production sites - in the lower part of the basin and in Bangkok - discharge untreated or only partially treated wastewater into the river. This is expected to get worse as industrialisation intensifies further upstream of the

² Chapter 1, Data gathering and analysis of Data system Development Project and modeling of 25 basins, <http://www.thaiwater.net/web/attachments/25basins/10-chaopraya.pdf>

³ ADB (2012) Greater Mekong Subregion, Atlas of the Environment, 2nd Edition, Asian Development Bank, Manila, Philippines

⁴ UN (2003) Water for People, Water for Life, World Water Assessment Programme, UN World Water Development Report, UNESCO, Berghahn Books, Barcelona

⁵ UN (2003) Water for People, Water for Life, World Water Assessment Programme, UN World Water

⁶ Ogata, T., Saavedra Valeriano, O.C., Yoshimura, C., Liengcharernsit, W., Hirayabashi, Y. (2012) Past and future hydrological simulations of Chao Phraya river basin, Journal of Japan Society of Civil Engineers, 68 (4), pp. 97-102

river. The main pollutants, in the Chao Phraya, include organic waste, nutrients, heavy metals, pesticides and other chemical substances.

Figure 4.1 Map of the Chao Phraya River Basin⁷



⁷ <http://www.chiangraitimes.com/china-to-help-draft-up-plan-for-chao-phraya-basin.html>

5 SUMMARY OF SHARED WATER CHALLENGES

The plant Water Resources Manager has developed a list for main shared water challenges in the catchment. Environmental, Health and Safety and the Security Manager use Community Relations Process (CRP) system to analyse and review the information gained from interviewed internal and external stakeholders. The CRP was carried out in November 2016 and, based on its outcome, the plant has developed list of shared water challenges and related priority through an evaluation risk matrix that considered likelihood and severity. Likelihood indicates the possibility of an event to occur while severity indicates the magnitude of its impact on the plant’s operations.

The water challenges are presented in Table 5.1 below. Information has been extracted from reference REF021 “Shared water challenges”.

Table 5.1. Detailed Shared Water Challenges for Perrier Vittel (Thailand) Ltd., Ayutthaya factory

Shared water challenges	Associated public sector agency, initiative	Relevance for the stakeholders	Stakeholder groups	Relevant for the site	Initiatives	Opportunities	Likelihood	Severity	Priority	Status
Salinization of the water (surface and GW)	Department of Groundwater Resources Local Government	Farming business: need for change	Other Influencers/Local Communities	Impact on factory operations	Water analysis monitoring	Protect brand/factory reputation and image and strengthen community relationship	Low	Medium	Medium	Continuous moitoring
Depletion of the GW	Department of Groundwater Resources Local government	Access to water for all interested stakeholders	Other Influencers/Local Communities	Impact on factory operations	Static water level monitoring	Strengthen community relationship, prolong new deep well drilling	Medium	Medium	Medium	Continuous moitoring

Shared water challenges	Associated public sector agency, initiative	Relevance for the stakeholders	Stakeholder groups	Relevant for the site	Initiatives	Opportunities	Likelihood	Severity	Priority	Status
Use of pesticide for farming	Department of Pollution	Access to good quality water	Other Influencers/Local Communities	Impact on factory operations	Water analysis monitoring	Protect brand/factory reputation and image and strengthen community relationship	Low	Medium	Medium	Continuous moitoring
Pollution from waste water from household and industries	Government control, treatment plants mandatory for industries and building blocks	Environmental impact for people in the community	Other Influencers/Local Communities	Impact on factory operations	Water analysis monitoring and raised awareness to protect natural resources	Protect brand/factory reputation and image and strengthen community relationship	Medium	Medium	Medium	Continuous moitoring + ongoing Youth Water Guardian Project
Floods	Local government, Provincial Government	Impact on daily lives	Other Influencers/Local Communities	Impact on factory operation	Prepare protection to preserve factory and water resources	Retain market share and protect business from disruption	Low	High	Medium	Flood protection done

6 INDICATORS CHECKLIST

As per the AWS certification requirements standard version 1.0 July 2015, Section No. 2.11.3.1 the below is a checklist of all the CORE AWS indicators with the relevant reviewed evidence provided by Perrier Vittel (Thailand) Ltd., Ayutthaya factory and the indicator with which it is associated.

Table 6.1 Evidence reviewed by SGS against each CORE AWS indicator

Clause	Details	Yes	No	Comments/Evidence
1	Leadership (core)			
1.1	Leadership commitment on water stewardship			
1.1.1	Has the organisation signed and published a statement related to his water stewardship commitment that includes all of the elements listed in core criteria 1.1?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF01 Factory's environmental policy and Leadership commitment on water stewardship REF02 Nestle Commitment on water stewardship REF03 Stakeholder consultation announcement https://www.nestlepurelife.com/th/sites/g/files/xknfdk426/files/2018-08/Stakeholder%20announcement%20-%20Ayutthaya.rev%20%281%29.pdf
1.2.1	Has the organisation elaborated, agreed upon and discloses a water stewardship policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF02 Nestle Commitment on water stewardship https://www.nestle.com/csv/impact/water/policy-stewardship
2	Water challenges (core)			Comments/Evidence
2.1.1	Site boundaries (map)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF05 Ayutthaya factory boundary picture
2.1.2	Name and location of sources of water (immediate and ultimate)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF06 Water source
2.1.3	Name and location of effluent discharges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF05 Ayutthaya factory boundary picture
2.1.4	Description or map of catchment (s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF011 Important water-related area and catchment water quality monitoring

Clause	Details	Yes	No	Comments/Evidence
2.2.1	Identification of stakeholders and their water challenges (list of stakeholders, prior engagement and their water challenges)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF07 Stakeholder mapping around the factory
2.2.2	Site sphere of influence (how the stakeholders are within the sphere of influence).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF07 Stakeholder mapping around the factory
2.3.1	Catchment data (catchment plan, public initiatives and/or public goals for the site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF08 20 years strategic planing of groundwater source
2.3.2	Water governance for the catchment: Water legal and regulatory requirements, including water and water use rights	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF09A Groundwater use license well No.2 REF09B Groundwater use license well No.3 REF09C Groundwater use license well No.4 REF09D Groundwater use license well No.5 REF023 Legal registration and evaluation
2.3.3	Water balance for the catchment (surface water, ground water, other)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF010 Catchment water balance
2.3.4	Water quality for the catchment: sewerage discharge, run-off, other)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Surface water quality of Chaopraya Basin in Ayutthaya province is available on Pollution Control Department website at link; http://iwis.pcd.go.th/index.php
2.3.5	Water related areas for the catchment: identification of the areas and description of current status and trends	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF011 Important water-related area and catchment water quality monitoring
2.3.6	Infrastructure for the catchment: available information on current and	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF011 Important water-related area and catchment water quality monitoring

Clause	Details	Yes	No	Comments/Evidence
	projected sufficiency of water to meet the needs of the catchment			
2.4.1	Water data for the site: water stewardship and incident response plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF012 Water situation monitoring and incident response plan REF013 Drough crisis planning REF014 Incident monitoring and response plan
2.4.2	Water data for the site: water balance (volumetric balance of water input and output)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF.015 Site water consumption balance
2.4.3	Water data for the site: water quality (direct and outsourced water effluent and also possible pollution sources)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF016 Effluent report during January to December 2017 REF017A Wastewater in canal beside factory on December 2017 REF017B Wastewater in canal infront of factory on March 2017 REF017C Wastewater in canal infront of factory on December 2017 REF018 Wastewater analysis monitoring plan 2018
2.4.4	Water data for the site: water quality (inventory of chemicals stored on site that are possible causes of water pollution)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF019 Production chemical stock as February 2018
2.4.5	Water data for the site: On-site identified water related areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF011 Important water-related area and catchment water quality monitoring
2.4.6	Water data for the site: water related costs, revenues and quantification of social, environmental and economic value generated by the site to the catchment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	According to water-related cost and revenue are confidential, both cost and revenue can be extracted from SAP system. The allocation cost for Nestle pure life cost extraction is 52173102 and 52173101 for Minere water's. Shared value of economic, social and environmental of Nestle pure life and Minere are also shown clearly. REF042 Water donation
2.5.1	Indirect water use: list primary inputs with their	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF020 Top 5 suppliers who consume water with amount of water consumption

Clause	Details	Yes	No	Comments/Evidence
	associated (annual) water use and, if possible, the origin of the water			
2.5.2	Indirect water use: list of outsourced services that consume or affect water quality. List estimated annual withdrawals and quality data.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF020 Top 5 suppliers who consume water with amount of water consumption
2.6.1	List of shared water challenges that affect the catchment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF021 Shared water challenges
2.7.1	Site risks and opportunities: list of site water related risks and actions to address the challenges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF021 Shared water challenges
2.7.2	Site risks and opportunities: list water related opportunities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF021 Shared water challenges
2.7.3	Site risks and opportunities: analysis of potential savings/value creation that could result from actions to address the challenges. Look at the actions in the context of water quality, water related areas, water governance, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF021 Shared water challenges REF024 List of water improvement project
3	Stewardship strategy and plan (core)			Comments/Evidence

Clause	Details	Yes	No	Comments/Evidence
3.1.1	Evidence of a system that periodically evaluates compliance with legal and regulatory requirements in criteria 2.3, together with names of those responsible.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF023 Legal registration and evaluation
3.2.1	Stewardship strategy that contains water challenges within the catchment and risks for the site together with the site responses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
3.2.2	Stewardship plan that contains:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
a)	List of targets (as per criteria 2.7) and how continuous improvement and best practice are achieved. The targets need to be SMART	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project REF025 Water saving target
b)	Proposed actions to achieve the targets and names of individuals responsible for each	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
c)	A budget for the proposed actions with a cost benefit analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
d)	Links to the desired results in terms of risks/opportunities, water stewardship outcome and shared water challenges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
3.3.1	Evidence of responsiveness and resilience to water related	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF014 Incident monitoring and response plan

Clause	Details	Yes	No	Comments/Evidence
	risks embedded in the site's incident response plan			
3.4.1	Evidence of notification to relevant catchment authority of the intention of the site to contribute to the objectives of the catchment plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF026 E-mail sharing information on catchment study to catchment authority
4	Implementation of the water stewardship plan			
4.1.1	Evidence of compliance legal and regulatory requirements with regards to water balance, water management and Important Water related areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF016 Effluent report during January to December 2017 REF017A Wastewater in canal beside factory on December 2017 REF017B Wastewater in canal in front of factory on March 2017 REF017C Wastewater in canal in front of factory on December 2017 REF018 Wastewater analysis monitoring plan 2018 REF09A Groundwater use license well No.2 REF09B Groundwater use license well No.3 REF09C Groundwater use license well No.4 REF09D Groundwater use license well No.5 REF023 Legal registration and evaluation
4.1.2	Evidence of efforts to provide safe drinking water and sanitation where stakeholders have an unmet human right	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF032 WASH action list REF042 Water donation REF043A Community wells sampling location and result REF043B Community wells sampling location and result
4.2.1 and 4.2.2	Evidence that the site water balance targets are met. If in a water scarcity situation, also evidence that there is a continuous	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF044 E-mail Combined Water Stress Index REF045 CWSI of Ayutthaya factory Nestle Pure Life website; https://www.nestlepurelife.com/th/sites/g/files/xknfdk426/files/2018-08/Water%20Consumption%20VS%20Target%202012-2018%20%281%29.pdf

Clause	Details	Yes	No	Comments/Evidence
	decrease in water withdrawals			However, since 2015 to 2017 rainfall amount has been continuously increasing, so it can confirm that no water scarcity in site area REF029 Rainfall trending between 2015 to 2018
4.2.3	Only in scarcity situations, evidence of no net increase in water scarcity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	However, since 2015 to 2017 rainfall amount has been continuously increasing, so it can confirm that no water scarcity in site area REF029 Rainfall trending between 2015 to 2018
4.3.1	Evidence that shows that water quality targets are met	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF016 Effluent report during January to December 2017 REF017A Wastewater in canal beside factory on December 2017 REF017B Wastewater in canal in front of factory on March 2017 REF017C Wastewater in canal in front of factory on December 2017
4.3.2	For water quality stressed catchments only: evidence of continual improvement or best practice	<input type="checkbox"/>	<input type="checkbox"/>	Only for surveillance in 2019 However, since 2015 to 2017 rainfall amount has been continuously increasing, so it can confirm that no water scarcity in site area REF029 Rainfall trending between 2015 to 2018
4.3.3	For water quality stressed catchments only and where the site wishes to increase effluent levels of water quality parameters: evidence of no net degradation in water quality in the catchment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF016 Effluent report during January to December 2017 REF017A Wastewater in canal beside factory on December 2017 REF017B Wastewater in canal in front of factory on March 2017 REF017C Wastewater in canal in front of factory on December 2017 REF018 Wastewater analysis monitoring plan 2018
4.4.1	Evidence that targets for the Important Water related Areas have been met	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No concern arise around shared water challenges that affected or link to important water-related area. REF022 Water related area prioritization
4.4.2	Where Important Water Related Areas is a shared water challenge, evidence that best practice are met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No concern arise around shared water challenges that affected or link to important water-related area. REF022 Water related area prioritization

Clause	Details	Yes	No	Comments/Evidence
4.5.1	Evidence of the site’s on-going efforts to contribute to good catchment governance (evidence of coordination and cooperation with catchment management authorities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF026 E-mail sharing information on catchment study to catchment authority REF027 Letter from Subdistrict Administration Organization request to use wastewater discharged
4.5.2	Only for weak water governance catchments: evidence of continual improvement/best practice	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No weak water governance catchment in this area.
4.6.1	Evidence that site product suppliers and water related service providers have been contacted and are taking actions to contribute to the water stewardship outcomes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF030 Sharing AWS information to contractors and suppliers
4.7.1	List of actions to ensure WASH on site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF031 WASH self assessment tool REF032 WASH action list
4.8.1	Evidence and list of key owners of the water infrastructure and content of message that has been conveyed related to the site risks and shared water challenges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No concern arise around shared water challenges that affected or link to water-related infrastructure. REF022 Water related area prioritization
5	Evaluation (core) “against the actions taken in the implementation of the plan”. Expectation of such an evaluation at least annually. For the first implementation, look for evidence that these indicators are included in the plan.			

Clause	Details	Yes	No	Comments/Evidence
5.1.1	Post implementation data and discussion on performance (water risk)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
5.1.2	Total amount of water related costs, cost saving and value creation with regards to the actions of criteria 3.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF024 List of water improvement project
5.1.3	Updated data for indicator 2.4.7 on catchment shared value creation	<input type="checkbox"/>	<input type="checkbox"/>	This is the 1 st year assessment.
5.2.1	Evidence of evaluation of water related emergencies and extreme events (effectiveness of preventive and corrective measures) and inclusion of lessons learnt in the updated action plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF014 Incident monitoring and response plan REF033 Business continuity plan Ayutthaya factory REF034 Business continuity plan Ayutthaya factory in case of fire and other catastrophe REF035 Business continuity plan human pandemic crisis
5.3.1	Feedback and commentaries from stakeholders on the site water stewardship performance and factor input in the updated action plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	As per interview head of village 4, representative of village 5 and representative of catchment authority, they are happy with the factory and receive the good corporation from the factory.
5.4.1	Update of the plan with the inputs from indicators 5.1.1, 5.1.2, 5.2.1, 5.3.1. Update does not apply for the first implementation/audit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	This is the 1 st year assessment.
6	Disclosure and communication of performance (core)			

Clause	Details	Yes	No	Comments/Evidence
6.1.1	Disclosure and public availability of summary related to the general governance structure of the site's management with names of those accountable for compliance with water related laws and regulations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Information has been disclosed on Nestle Pure life website at link; https://www.nestlepurelife.com/th/th-th/node/456
6.2.1	Disclosure of summary of site's water stewardship results against the targets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF036 Minute of meeting at Moo 4 village REF037 Minute of meeting at Moo 5 village REF039 Youth water guardian with Nestle 2017
6.3.1	Disclosure and public availability of efforts to address shared challenges and report on actions taken to help address these challenges and engage stakeholders, including public sector agencies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The factory has been working together with WWF Thailand to raise awareness in Ayutthaya province on water conservation and working as network to strengthen the effectiveness of water monitoring with engagement of local government which are shared challenges and many action taking to engage stakeholders. As per AWS working team and stakeholder representative interview, no regulatory violations occurred at to date. However, the factory has assigned staff who will work closely with catchment authority and villagers. In case of any violation, they can contact directly to working team.
6.4.1	Document and make available a list of any site water compliance violation together with the corrective action implemented to prevent further occurrence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Moreover, the factory has been working together with WWF Thailand create Youth Water Guardian project to work on canal conservation, establish learning center as a best practice sharing and pass on knowledge and raise awareness on water conservation to community. REF040 3rd contract of Youth Water Guardian with WWF REF041 Youth water guardian project road map
6.5.1	Evidence of awareness related initiatives at site level with dates of communications and, if possible, level of awareness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	REF038 Community meeting photo REF039 Youth water guardian with Nestle 2017 REF041 Youth water guardian project road map

7 AUDIT FINDINGS

A findings log was issued to Perrier Vittel (Thailand) Ltd., Ayutthaya factory which detailed the findings raised during the audit. As there were a large number of documents supplied to SGS as evidence and each one had to be reviewed, the findings log acted as a live document and was updated periodically until all indicators and documents had been reviewed for compliance. The factory was then provided with time to respond to the findings (provide root cause analysis and timeline for implementation) and supply additional information for SGS where the Technical Reviewer requested additional clarifications. Once all major findings were closed by the Lead Auditor, all documentation and audit trail were then reviewed by the Technical Reviewer.

7.1 MAJOR NON CONFORMANCES

During the course of the audit three major non-conformances were raised. Two of them related to important water related areas and opportunities. The third related to the information provided for the water stewardship plan.

Table 7.1.1. Major Non-Conformances raised during the AWS audit process

No.	Type	Ref.	Details	Response by Perrier Vittel (Thailand) Ltd., Ayutthaya factory	Relevant References
3	Major Non Conformance	3MAJCAR	Indicator 2.3.6. the factory does not include water-related infrastructure on current and projected sufficiency of water to meet the needs of the catchment.	<ol style="list-style-type: none"> 1. The factory revised document REF011 by including list of water-related infrastructure in Ayutthaya province. 2. The factory has evaluated Ayutthaya heritage area and explained that the heritage area is upstream, approximately 13 km away from the factory. Therefore factory cannot does not have any impact on this area. 	REF011 Important water-related area REF022 Water related area prioritization
6	Major Non Conformance	6MAJCAR	Indicator: 2.7.2 the list of shared water challenges identified risks, associated agency and relevance stakeholder groups impact and activities implementation. Water related opportunities were not been listed.	<ol style="list-style-type: none"> 1. The factory revised document REF021 by including list of water related opportunities for each challenge 2. The benefits are brand protection, factory reputation and image and strengthening of community relationship. 	REF021 Shared water challenges

No.	Type	Ref.	Details	Response by Perrier Vittel (Thailand) Ltd., Ayutthaya factory	Relevant References
7	Major Non Conformance	7MAJCAR	Indicator 3.2.2 the factory has listed many water improvement projects. Water reduction projects have been implemented since 2012 and will run through 2020. However, the factory does not identify a measurable target for each project, name or department or responsible team and budget for proposed action.	<ol style="list-style-type: none"> 1. The factory revised the document REF024 by identify responsible department for each project 2. Each project includes financial savings and budgets 3. The factory provided water saving target for each project as documented in REF025 4. The target for each project was set as a feasibility study, which can be measured and has an achievable timeline. 	REF024 List of water improvement projects REF025 Water saving targets

7.2 MINOR NON CONFORMANCES

Two minor non-conformances were raised during the audit process. Perrier Vittel (Thailand) Ltd., Ayutthaya factory has clarified both non-conformances.

Table 7.2.1. Minor Non-Conformances raised during the AWS audit process

No.	Type	Ref.	Details	Response by Perrier Vittel (Thailand) Ltd., Ayutthaya factory	Relevant References
2.	Minor Non-Conformance	2MINCAR	Indicator 2.2.2, name and type of stakeholders have been listed with relevant weight on their influence. However, the potential stakeholder concern was not identified.	<ol style="list-style-type: none"> 1. The factory provided document REF046. 2. The factory uses the Community relation process (CRP) version 2 to analyse and compare its internal vision with external stakeholders' perception. 3. The potential stakeholders concerns are shown in the matrix. 	REF046 Community relation process system

5.	Minor Non-Conformance	10MINCAR	Indicator 2.6.1, the factory has identify use of pesticide for farming. However, the parameters for the pesticide and the standard value should be identified for continuous monitoring.	<ol style="list-style-type: none"> 1. The factory clarified that pesticides have been monitored annually. Monitoring parameters and standard reference were shown as REF047 2. The concentration of standard value is 0 mg/l and previous monitoring report showed the compliance with standard. 	REF047 Supporting evidence to close gaps

7.3 OBSERVATIONS

Five observations were raised during the audit which are improvement opportunities. No action is necessary during this audit period but these issues would most likely come under scrutiny during the surveillance audit.

Table 7.3.1. Observations and New Information Requests raised during the AWS audit process

No.	Type	Ref.	Details	Response by Perrier Vittel (Thailand) Ltd., Ayutthaya factory	Relevant References
1	Observation	1OBS	Indicator 2.1.3 Factory has been indentified in the map together with the wastewater effluent location. However, the effluent should highlight the flow direction to downstream. Upstream and downstream should also highlight the separation in map.		
8	Observation	8OBS	Indicator 2.4.4 The factory has listed name and amount of chemicals used which can cause water pollution. However, it should be indicate how each chemical affect the water and the related hazardous levels to water source.		
9	Observation	9OBS	Indicator 6.4.1 As per interviews, stakeholders can contact the plant for all and any violation identified. However, the plant foes not have a complaint form and policy to detail the steps of the complaint process and the actions implemented following a complaint. .		
10	Observation	10OBS	Indicator 2.7.3 There are 5 challenges to be listed, but the actions to address the challenges cover only the water reduction project. The other 4 challenges (salinization of the water, pesticided, wastewater pollution from household and flooding) should be included in stewardship plan.		
11	Observation	11OBS	Indicator 2.5.2 The factory has listed top 5 suppliers with related water consumption value. However, the factory should request these suppliers to monitor wastewater quality and report to the factory.		

8 SUMMARY

In reviewing the body of evidence presented by Perrier Vittel (Thailand) Ltd., Ayutthaya factory it is apparent that a considerable quantity of effort and work has been put into the preparation for the audit for Alliance for Water Stewardship Certification.

The major non-conformances identified had three areas for improvement, water-related area and opportunities of water challenges identification, and information should be identified in stewardship planning.

The minor non-conformances were all situations where the factory was considered to have partially met the AWS Core criterion requirement but were requested to make some small adjustments to the documentation or process in order to be considered fully compliant.

Some instances of observations were raised during the audit which are affectively recommendations for future improvement. No action is necessary during this audit period but these issues would most likely come under scrutiny during a surveillance audit scenario.

All evidence submitted to SGS in response to the findings was reviewed and evaluated for compliance to the AWS standard. All actions were accepted as sufficient to demonstrate compliance and the findings were cleared and closed.

9 OPPORTUNITIES FOR IMPROVEMENT

The certification audit for Perrier Vittel (Thailand) Ltd., Ayutthaya factory against the AWS Standard is for the initial assessment for conformity and as such allows for some areas for improvement going forward.

As this was a first year assessment focus of the review has been centred on the documented plan and implementation of to date. However, there has been checked all the criteria assessed in this report.

Future audits will review deeply the evaluation of performance against the Standard indicators and how this is monitored and presented as compliance. SGS recommends that Perrier Vittel (Thailand) Ltd., Ayutthaya factory develops robust ways of monitoring performance against the indicators, collecting, storing and presenting this data in anticipation of future audits.

10 CONCLUSIONS AND RECOMMENDATIONS

Given the review of evidence produced and site visit inspections performed at the Perrier Vittel (Thailand) Ltd., Ayutthaya factory, SGS recommends that Perrier Vittel (Thailand) Ltd., Ayutthaya factory is awarded AWS Core Certified status with a surveillance audit interval of annual frequency.

11 REFERENCES

- REF01 Factory's environmental policy and Leadership commitment on water stewardship signed by Mr. Taweesak Rujirapisit Ayutthaya factory manager
- REF02 Nestle Commitment on water stewardship, policy mandatory July 2014
- REF03 Stakeholder announcement, date 07/05/2018, signed by Mr. Taweesak Rujirapisit Ayutthaya factory manager
- REF04 Nestle Waters commitments, Key Global Message Internal Document, date July 2017, by Maurizio Patarnello CEO of Nestle Waters
- REF05 Ayutthaya factory boundary picture
- REF06 Water source, page 4 of groundwater in Thailand, Journal of Environmental Science and Engineering B 3 (2014) 304-315
- REF07 Stakeholder mapping around the factory
- REF08 20 years strategic planing of groundwater source, Bureau of Water Resources Policy and Planning, Department of Water Resources, December 2016
- REF09A Groundwater use license well No.2, issued by Director of Provincial Offices for Natural Resources and Environment Ayutthaya, issued date 01/01/2017, expiry date 31/12/2018
- REF09B Groundwater use license well No.3, issued by Director of Provincial Offices for Natural Resources and Environment Ayutthaya, issued date 01/01/2017, expiry date 31/12/2018
- REF09C Groundwater use license well No.4, issued by Director of Provincial Offices for Natural Resources and Environment Ayutthaya, issued date 01/01/2017, expiry date 31/12/2018
- REF09D Groundwater use license well No.5, issued by Director of Provincial Offices for Natural Resources and Environment Ayutthaya, issued date 01/01/2017, expiry date 31/12/2018
- REF010 Catchment water balance
- REF011 Important water-related area and catchment water quality monitoring
- REF012 Water situation monitoring and incident response plan
- REF013 Drough crisis planning
- REF014 Incident monitoring and response plan
- REF015 Site water consumption balance
- REF016 Effluent report during January to December 2017, sampling and analysis by ALS Laboratory Group (Thailand) Co.,Ltd.
- REF017A Wastewater in canal beside factory on December 2017, sampling and analysis by ALS Laboratory Group (Thailand) Co.,Ltd.
- REF017B Wastewater in canal infront of factory on March 2017, sampling and analysis by ALS Laboratory Group (Thailand) Co.,Ltd.
- REF017C Wastewater in canal infront of factory on December 2017, sampling and analysis by ALS Laboratory Group (Thailand) Co.,Ltd.
- REF018 Wastewater analysis monitoring plan 2018
- REF019 Production chemical stock as February 2018
- REF020 Top 5 suppliers who consume water with amount of water consumption
- REF021 Shared water challenges

- REF022 Water related area prioritization
- REF023 Legal registration and evaluation
- REF024 List of water improvement project
- REF025 Water saving target
- REF026 E-mail shareing information on catchment study to catchment authority, date 25/07/2018
- REF027 Letter from Subdistrict Administration Organization request to use wastewater discharged, date 03/06/2017
- REF029 Rainfall trending between 2015 to 2018
- REF030 Sharing AWS information to contractors and suppliers
- REF031 WASH self assessment tool
- REF032 WASH action list
- REF033 Business continuity plan Ayutthaya factory, issue date 01/10/2012
- REF034 Business continuity plan Ayutthaya factory in case of fire and other catastrophe, issue date 30/12/2014
- REF035 4Business continuity plan human pandemic crisis, issue date 20/11/2017
- REF036 Minute of meeting at Moo 4 village, date 16/08/2017
- REF037 Minute of meeting at Moo 5 village, date 25/04/2017
- REF038 Community meeting photo
- REF039 Youth water guardian with Nestle 2017
- REF040 3rd contract of Youth Water Guardian with WWF
- REF041 Youth water guardian project road map
- REF042 Water donation
- REF043A Community wells sampling location and result
- REF043B Community wells sampling location and result
- REF044 E-mail Combined Water Stress Index from Marc Alary, Regional Water Resource Manager Asia, date 10/10/2017
- REF045 CWSI of Ayutthaya factory
- REF046 Community relation process system
- REF047 Supporting evidence to close gaps

APPENDIX 1
SGS AUDIT CHECKLIST

APPENDIX 2

PERRIER VITTEL (THAILAND) LTD., AYUTTHAYA FACTORY

ACTION PLANS RESPONSE TO FINDINGS