Nestle Port Qasim Factory

AWS AUDIT REPORT

1. Client and Certificate Details

1.1 Client details:

Client Name: Nestle Pakistan Limited, Islamabad Factory	**Audit location:** Plot # 32, Street 3, sector I-10/3, Islamabad Pakistan
Activities/Processes: Bottled Water Manufacturing Company	**Contact person:** Amjad Saleem
AWS Reference Number: AWS-000146	**Type of audit:** AWS Audit
Audit date(s): 15 –16 July, 2021	**Audit standard :** AWS Core criteria
Proposed date of next audit: July, 2022	**Audit report completed by:** Tariq Qamar

1.2 Audit team:

Name	Nationality	Telephone number	Role in team	Spoken Languages
Tariq Qamar	Pakistan	0092-300-8488792	Lead Auditor	English+Urdu
Rizwan Masood	Pakistan	0092-301-8458538	Auditor	English+Urdu

2. Details of Audit and Scope of Certification

Audit Standard	The AWS International Water Stewardship Standard Version V2.0 March 22, 2019
Scope of Certification	Manufacturing and warehouse of bottled water.
Description the catchment in which client operates	The catchment scope includes middle Indus Basin that encompasses river Soan, river Korang & river Haro. Coming all the way from foothills of Patriyata, fed by melting snow and natural springs of Murree Hills. It drains much of the water of Potohar region. This area is located in the north of Islamabad-Rawalpindi and affects a scope of 25km of width and 150 km of length.
Summary of shared water challenges	The catchment has two major shared challenges: very deep water table and water quality degradation. Organization has identified the actions to tackle with these challenges. Two type of actions are in progress: within company boundary/scope of work and collaborative work in the catchment. The company has identified the site location as water stressed region and set benchmarks for its water consumption accordingly.

3 Audit Summary

Main processes/ activities / places inspected	Practices adopted (concise summary of the client's conformity or non-conformity with: all core indicators; and all advanced-level indicators)	Point values (each core indicator and advanced-level indicator)
1 Gather and understand	The site management have acquired adequate water related information of the location and surroundings. The site related basic information like; site layout, geographical location/boundaries, water source, drain points etc. were found well documented. They have only one drain point. The site has performed a surrounding community survey to acquire information about water related challenges of the area. The site has only one source of water i.e. deep well, for which hydrological surveys were performed by technical experts. The catchment of site has been defined (17Km Radius around the site) on the basis hydrological survey estimating the influence of water extraction from deep well at site. Site has adiquate studies on status of water related issues of catchment including future trends. Following are main studies available -Design Report – NESPAK Hydrogeological Study for a Deep Well in Islamabad -Antea Group (Technical report based on data from NESPAK) Nestlé Pakistan - Islamabad Water Factory, Constructive critical review of hydrogeological reports – A83640/C (2016) The last study was conducted in 2016 and PO for new study has already been issued. The organization conduct its hydrogeological study every five years. Details of new hydrological study is as follow PO # 4555280275 dated: 07/05/2021 Vendar: Antia France Service Description: Hydrological study of catchment Expected date of completion: Sep, 2021 The effluent water discharge of the site is continuously being monitored for its compliance with national environmental quality standards (NEQS). The discharged effluents first enters	**CORE** **1.1** **1.1.1** **1.2** **1.2.1**

	in industrial drain, which further joins the Nala Lai and finally get in to Suan river. Suan river is considered as ultimate receiving body and lies within the defined catchment. Site has installed adequate instrumentation on water lines and area wise water consumption is being monitored and recorded. On the basis of site water consumption and well water extraction data, site water balance is calculated and recorded on weekly basis. Training and awareness sessions for workers about water related issues and mitigation measures have been conducted, which also includes the awareness about the indirect water use. Suppliers and service provider have also been communicated about the shared water related challenges and responsible water. On the basis of community survey and technical surveys, shared water related challenges of the catchment have been identified. The shared challenges have been analyzed and discussed with concerned authorities. Finally, two major shared challenges have been identified: very deep water table and water quality degradation. The company (Nestle) has identified the site location as water stressed region and set benchmarks/targets for its water consumption accordingly. To achieve water consumption targets site has initiated many projects at site. The site management has also identified potential water related emergencies and their mitigation plans. Site has identified the water related risks and prioritized them on basis of likelihood and impact based priority matrix. Three risks are defined high priority; - well pump/casing malfunctioning - Well contamination - Static level (water table) decreasing The stakeholder list was updated CDA, MCI, EPA, Near by industry, local community, NGOs were identified as stakeholder. WASA, Rawalpindi was not included in stakeholder listbut is main authority responsible for water governance in some areas in catchment.	
2 Commit and Plan	A documented commitment statement was available at site which was also signed by site senior most management. The commitment statement mainly focus on “water to meet human right to water”. It emphasis on continuous improvement in efficient use of water in its operations and innovative agricultural program with formers of catchment.	**CORE** **2.1** **2.1.1** **2.1.2** **2.1.3** **2.1.4**

	The site is following the corporate water stewardship policy which is endorsed by Nestle Globe in July 2014 and also available on web. This policy is also being followed company wide and found satisfactory. Site management is working with government and non-government bodies for identification, planning and execution of water related projects to mitigate shared catchment challenges. Policy communicated thru awareness session. Site has identified a team of AWS champions with their roles and responsibilities. Site SHE Manager is responsible for identification of water related legal requirements and monitoring their compliance. Site has identified water stewardship initiatives with timelines. The initiatives are focused on water governance, sustainable water balance, water quality and status of other water related important areas. These initiatives were identified on the basis of; - Peer reviews - CSV (Creating shared value) - Pre-assessment, internal assessment and WWF - Site visits with local authority (CDA) Site has developed an incident and response plan which includes the undesired water related incidents and emergencies.	**2.2** **2.2.1** **2.2.2** **2.3** **2.3.1** **2.3.2** **2.4** **2.4.1**
3 Implement	The water related legal compliance is being monitored on regular basis, EPA has defined quarterly monitoring on priority effluent quality parameters. However, site is monitoring effluent quality on monthly basis as a good practice. Well water and product water quality is also being monitored in addition to effluent water quality. All the water quality results were found in compliance with requirements. Site water stewardship plan is based on SMART targets and these targets are continuously being monitored. These targets have been presented on site progress meeting board. The ownership of initiatives has been assigned to process owners and AWS leaders. The company (Nestle) has identified the site location as water stressed region (not water scars region) and set benchmarks/targets for its water consumption. Many water relater initiative have been implemented for improvement in	**CORE** **3.1** **3.1.1** **3.2** **3.2.1** **3.2.2** **3.3** **3.3.1** **3.4** **3.4.1**

	site water consumption targets. Site water consumption have been reduced from 1.67 to 1.48 $m^3$of water/ton of production during the last 5 years. 1.48 m^3/m^3 achived in 2020 and same is expected to sustain in 2021. However the coorporate target is 1.41 m^3/m^3 but these are not realistic as by removing all the losses the target value can't be achieved. "No action plan to achieve the corporate water consumption target (as it is not realistic) and organization has decided to sustain the water consumption. This new arrangement hasn't been documented anywhere so far" The quality of source water is monitored. The monitoring results shows quality degradation in term of conductivity which has increased from 800 – 900 ppm over the passage of 7 years (2009 to 2016). However these values are in safe range. Site management is engaged in activities to improve water related areas. These activities are focused on reducing the water withdrawal and adopting best practices to avoid water quality degradation. Static and dynamic depth of water table is being monitored on daily basis. Site management is actively involved in water related improvement areas of catchment through collaborative work with WWF, NARC, CDA and other NGOs. Current water related projects include drip irrigation with moisture sensor for fruit garden to reduce water consumption, Plantation of trees to reduce rain water runoff and etc The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene.	
4 Evaluate	The performance against water stewardship plan is continuously being monitored. Following are some of the achievements during year 2017 - Water consumption reduction from 1.67 to 1.57 $m^3$of water/ton of production. - Water saving of 6300 m^3 till Nov, 2017 - 2.5 million PKR saving from water related areas - 16.5 % water saving have been achieved by water	**CORE** **4.1** **4.1.1** **4.1.2** **4.2** **4.2.1**

	related projects These results are evident of site's efforts to minimize risk of static depletion of water table. No water related emergency incident or extreme event occurred, hence no incident report available. The water stewardship plan was shared in an event organized by Sustainable Development Policy Institute (SDPI). The feedback was also taken from key participants including stakeholder and technical experts. Overall feedback was positive about the planned water related initiatives.	**4.3** **4.3.1** **4.3.3** **4.4.1**
5 communication and disclose	The internal procedure for alliance for water steward ship 1580-FE D3 10.00. They mentioned all six steps in details. They have internal audit team for SKP like AWS lead. Corporate public Affair, AWS link Nestle water, and Factory Compliance Manager and Employee Relationship Manager. They also disclosed Summer of Site stewardship Result http://www.nestle.pk/csv/water/alliance-for-water-stewardship.This is all verified during interview with stakeholder. No deviation to compliance is observed. They have participated in many conferences with SDPI and also in Government session and record were maintained	**CORE** **5.1** **5.1.1** **5.1.2** **5.1.3** **5.2** **5.2.1** **5.3.1** **5.4** **5.4.1**
Only Core Level of AWS certificate are considered in the scope at this stage. No advance level criteria have been included and assessed as Nestle asked only for CORE.		
Comments on points of weakness & opportunities for improvement	Currently dates of revision of stewardship plans were not available which needs to be managed via document control system. Also mechanism for communication of stewardship plan needs to be enhanced.	
Comments on points of strengths	**1. The documentation is impressive and also retrieve ability is excellent** **2. The site AWS plan and management is good, such as water usage and effluent data and information were collected and analyzed, objective and actions are properly established.** **3. The company involved stakeholders to take part in water awareness education, meeting and seminars.** **4. Supply resource to support AWS management establishing, planning, implementation and performance disclose**	
Audit Conclusion:	**No major and minor NCR found however two observation have been raised and closed .**	Tariq Qamar (TL) **Concluded By**
Recommendation for Certification & AWS Core, AWS Gold, or AWS	**It is recommended the company to be registered for AWS certification (Core level).**	

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Platinum Certified to be awarded		**Recommended By**

4. Audit Observations, Findings and Conclusions

Major Non Conformity

NO.	AWS requirement	Description of NC	Client's response and Documentation provided	BV assessment
		Nil	Nil	Nil

Minor Non Conformity

No.	AWS requirement	Description of NC	Client's response and Documentation provided	BV assessment

Observations

NO.	AWS requirement	Description of Observations	Client's response and Documentation provided	BV assessment
1	3.4.1	"No action plan to achieve the corporate water consumption target (as it is not realistic) and organization has decided to sustain the water consumption. This new arrangement hasn't been documented anywhere so far"	Response was sufficient and verified and found satisfactory	Reviewed and found satisfactory
2	1.2.1	The stakeholder list was updated CDA, MCI, EPA, Near by industry, local community, NGOs were identified as stakeholder. WASA, Rawalpindi was not included in stakeholder listbut is main authority responsible for water governance in some areas in catchment.	Response was sufficient and verified and found satisfactory	Reviewed and found satisfactory

5 Surveillance schedule and if samplings required:

Default surveillance level to be annual on-site audit will be due in July 2022.

5. Disclaimer

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Society responsibility and Environmental management with almost 180 years history in providing independent verification and audit services. The audit was based on a sampling approach and therefore nonconformities may exist which have not been identified. No member of the audit team has a business relationship with Nestle. We have conducted this audit independently, and there has been no conflict of interest.

6 Appendix A Checklist

	Description	Objective evidence (audit team shall not give a response of "not applicable)(stakeholder consultation results should be included in relevant cells)
STEP 1: Gather and understand		
Criterion 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.	

	1.1.1The 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.	A documented layout of site is available. Operational boundries includes the exisisting facility. The site management have acquired adequate water related information of the location and surroundings. The site related basic information like; site layout, geographical location/boundaries, water source, drain points etc. were found well documented. They have only one drain point.
Criterion 1.2	Understand relevant stakeholders, their waterrelated 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	The stakeholder list was updated CDA, MCI, EPA, Nearby industry, local community, NGOs were identified as stakeholder. WASA, Rawalpindi was not included in stakeholder listbut is main authority responsible for water governance in some areas in catchment. The site has performed a surrounding community survey to acquire information about water related challenges of the area. The site has only one

	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.	source of water i.e. deep well, for which hydrological surveys were performed by technical experts. The catchment of site has been defined (17Km Radius around the site) on the basis hydrological survey estimating the influence of water extraction from deep well at site.
	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.	The site has performed a surrounding community survey to acquire information about water related challenges of the area. The site has only one source of water i.e. deep well, for which hydrological surveys were performed by technical experts. The catchment of site has been defined (17Km Radius around the site) on the basis hydrological survey estimating the influence of water extraction from deep well at site. Site has adiquate studies on status of water related issues of catchment including future trends. Following are main studies available -Design Report – NESPAK Hydrogeological Study for a Deep Well in Islamabad
Criterion 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.	The site is following the corporate water stewardship policy which is endorsed by Nestle Globe in July 2014 and also available on web. This policy is also being followed company wide and found satisfactory.
	1.3.2 Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped.	Site has installed adequate instrumentation on water lines and area wise water consumption is being monitored and recorded. On the basis of site water consumption and well water extraction data, site water balance is calculated and recorded on weekly basis.
	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.	The total estimated groundwater abstraction in 2018 by the 21 industries in the vicinity of Nestlé factory is estimated by using a ratio rate at 8.4 Mm3 per year. For 5 years prod volumes, deep wells capacity utilization is calculated in advance Annual variance in water usage (Lean (winter): less water usage and Peak (Summer): More water usage due to high product volumes Specific Capacity of deep wells is calculated during construction and step tests are done which tells aquifer capacity to regain its level. Safe yield (m3/hr) is defined based on this data. DWL and SWL are also monitored to keep check on aquifer capacity – Technical data sheet.
	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	Water quality is good, verified report ESPAK/153/21/ww/1000/00152 The site has performed a surrounding community survey to acquire information about water related challenges of the area. The site has only one source of water i.e. deep well, for which hydrological surveys were performed by technical experts. The catchment of site has been defined (17Km Radius around the site) on the basis hydrological survey estimating the influence of water extraction from deep well at site

	appropriate, seasonal, high and low variances shall be quantified.	
	1.3.5 Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.	Site layout is also established for Chemical storage area-store chemicals with containment Machine oils Waste disposal facilities-SKP is zero landfill Separate rain and process channels- Confined deep wells having protecting clay layer for infiltration. More depth also does not support infiltration. During construction of deep wells grouting is done upto 100 m to avoid pollutants infiltration. Refer to technical data sheet
	1.3.6 On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.	Deep wells are on site . Site has always considered water as priority and budget is allocated for water saving projects, hydrogeological study, risk mitigation and stakeholder management and resource trainings etc Cost: Water saving Projects: 1. Identified via water mapping 2. Implemented with project schedule 3. Committed results are delivered 4. Regular monitoring of performance (Recovery RO) Water saving projects help to increase life of water resources.
	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.	Cost: Water saving Projects: 1. Identified via water mapping 2. Implemented with project schedule 3. Committed results are delivered 4. Regular monitoring of performance (Recovery RO) Water saving projects help to increase life of water resources. The performance against water stewardship plan is continuously being monitored. Following are some of the achievements during year 2017 - Water consumption reduction from 1.67 to 1.57 $m^3$of water/ton of production. - Water saving of 6300 m^3 till Nov, 2017 - 2.5 million PKR saving from water related areas - 16.5 % water saving have been achieved by water related projects These results are evident of site's efforts to minimize risk of static depletion of water table. No water related emergency incident or extreme event occurred, hence no incident report available.

		The water stewardship plan was shared in an event organized by Sustainable Development Policy Institute (SDPI). The feedback was also taken from key participants including stakeholder and technical experts. Overall feedback was positive about the planned water related initiatives.
	1.3.8 Levels of access and adequacy of WASH at the site shall be identified.	The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene.
Criterion 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.	• Site catchment risks are identified, as per annual calculation input is 87712mM3/year in area of influence is precipitation, 720Km2, Runoff 105,84 mM3/year as water out put. ETP 923,76 mM3/year.
	1.4.2 The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	Out Sourced services are identified like: Provision of drinking water filters for water coolers at I.M.C.G Kot Hathial, Islamabad, Rain water harvesting at I.M.C.G Kot Hathial, Islamabad. Soil moisture sensors installation. Laundry Wastewater Recycling.

Criterion 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.	The catchment has two major shared challenges: very deep water table and water quality degradation. Organization has identified the actions to tackle with these challenges. Two type of actions are in progress: within company boundary/scope of work and collaborative work in the catchment. The company has identified the site location as water stressed region and set benchmarks for its water consumption accordingly. The site has performed a surrounding community survey to acquire information about water related challenges of the area. The site has only one source of water i.e. deep well, for which hydrological surveys were performed by technical experts. The catchment of site has been defined (17Km Radius around the site) on the basis hydrological survey estimating the influence of water extraction from deep well at site.
	1.5.2 Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.	Site has identified water related legal and regulatroy requirements. They are: Pakistan Environmental Protection Act, 1997 (No. XXXIV of 1997) Punjab Environmental Protection Act, 1997 (No. XXXIV of 1997) (amended 2012) Punjab Flood Plain Regulation Act, 2016 (No. XXVII) Punjab Disaster Response Plan 2014 Pakistan Environmental Protection Act, 1997 (Act No. XXXIV of 1997) Punjab Irrigation and Drainage Authority Act, 1997 (No. XI of 1997) Punjab Soil Reclamation Act, 1952 (Punjab Act XXI of 1952) Punjab Local Government Act 2013 (No. XVIII of 2013)
	1.5.3 The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.	Site has installed adequate instrumentation on water lines and area wise water consumption is being monitored and recorded. On the basis of site water consumption and well water extraction data, site water balance is calculated and recorded on weekly basis. Groundwater recharge from the rainfall is 187,92 Mm3/year in area of 720Km2.

	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.	Main source of water at Islamabad Factory was DW-2 till Sep 2018 and from than onwards DW-3. Minor source of water is Utility service provider – Capital Development Authority. This connection was established in Feb 2019. CDA utilizes water from Khanpur Dam located on River Haro. However, Nestle have taken 0 m3 from CDA in 2021. Underground Water Extraction 2017: 134,071 m3 2018: 131,442 m3 2019: 117,3954 m3 2020: 119,124 m3 2021 YTD: 63,703 m3 CDA Water Utilization 2019: 156 m3 2020: 0 m3 2021 YTD: 0 m3
	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.	Site management is engaged in activities to improve water related areas. These activities are focused on reducing the water withdrawal and adopting best practices to avoid water quality degradation. Static and dynamic depth of water table is being monitored on daily basis. Site management is actively involved in water related improvement areas of catchment through collaborative work with WWF, NARC, CDA and other NGOs. Current water related projects include drip irrigation with moisture sensor for fruit garden to reduce water consumption, Plantation of trees to reduce rain water runoff and etc The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene. The performance against water stewardship plan is continuously being monitored. Following are some of the achievements during year 2017 - Water consumption reduction from 1.67 to 1.57 $m^3$of water/ton of production. - Water saving of 6300 m^3 till Nov, 2017 - 2.5 million PKR saving from water related areas - 16.5 % water saving have been achieved by water related projects These results are evident of site's efforts to minimize risk of static depletion of water table. No water related emergency incident or extreme event occurred, hence no incident report available. The water stewardship plan was shared in an event organized by Sustainable Development Policy Institute (SDPI). The feedback was also taken from key

		participants including stakeholder and technical experts. Overall feedback was positive about the planned water related initiatives.
	1.5.6 Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.	On the basis of community survey and technical surveys, shared water related challenges of the catchment have been identified. The shared challenges have been analyzed and discussed with concerned authorities.
	1.5.7 The adequacy of available WASH services within the catchment shall be identified.	The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene.
Criterion 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.	Major challenges are waste water reduction, effluent treatment, RO recovery, Rain water harvesting at I.M.C.G Kot Hathial, Islamabad, however all have been adressed bby different action plan ti mitigate them.
	1.6.2 Initiatives to address shared water challenges shall be identified.	Continuation of the quarterly monitoring of the groundwater quality of the pumping wells at Islamabad is performed. in order to monitor the development of mineralization, as well as potential trends of changes in chemical composition of the groundwater

Criterion 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.	**Risk :** The risk of contamination to the local aquifer is considered as high. Ground water stress
	1.7.2 Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.	**Actions :** • estle Islamabad factory to plant 2000 trees in monsoon tree plantation drive. • Laundry service provider is engaged for this project. Project is explained and support will be provided to him for the project in terms of coaching and training. • install 15 soil moisture sensors within hydroshed of Islamabad plant • installation of Rainwater Harvesting Units at Girl Schools in Islamabad Identification of low cost solution for RWH/Preparation of Feasibility Study
Criterion 1.8	Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional,	During meeting with neighboring industries on world water day, we shared our best practices in contrast to AWS. Neighboring industries appreciated efforts. By overall session, it was evident that Nestle Islamabad Factory is having best practices from understanding to hydrogeological studies till water saving and waste water management. Also site has developed resources of expert who will share best practices with neighboring industries as well as sustain and improve best practices within site.

	or national relevance.	
	1.8.1 Relevant catchment best practice for water governance shall be identified.	For better water governance, Nestlé conducts stakeholder consultation as well as local population survey. Action plan is made which helps to improve AWS outcomes
	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.	Hydrogeological study is done every 5 to 6 years to have complete overview of catchment Deep wells (IWRA) Dynamic and static water levels are measured and analysis is done by hydrogeological expert at zone to identify any abnormality right away followed by corrective actions.
	1.8.3 Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	Complete chemical testing are done at regular frequency to predict any changes in water quality of aquifer (catchment) Besides this daily/weekly micro and sensory results are evaluated to keep check on water quality.
	1.8.4 Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	Deep Wells CIPs are done on basis of results. Hydrogeological study, Pump tests, safe yields are calculated to know aquifer strength Routine maintenance procedures with camera survey are defined and resources are trained to maintain health of important water related areas.
	1.8.5 Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.	WASH assessment is reviewed regularly for site as well as community is covered in CRP to know any steps related to WASH and improvement projects are done accordingly. (washrooms in school building)
STEP 2: Commit and Plan		
Criterion 2.1	Commit to water stewardship by having the senior-most manager in charge of water	

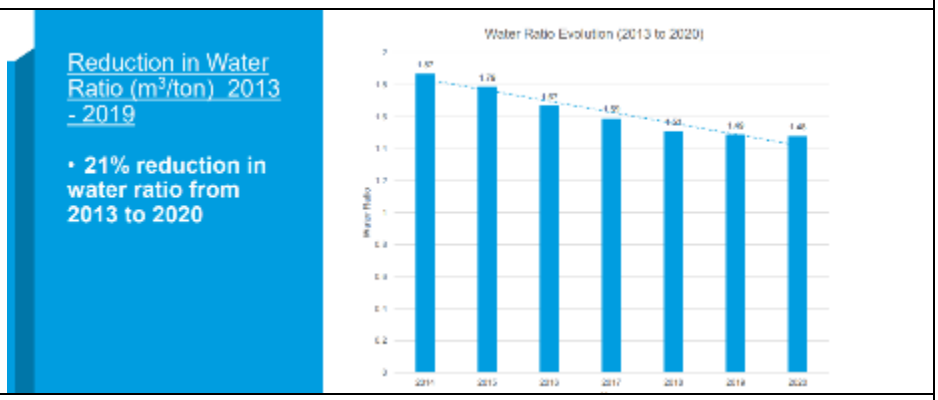
	at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.	
	2.1.1 A signed and publicly disclosed 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	Site has addressed the requirement of standard, and all required commetments are publicaly disclosed.

	implement the Standard.	
Criterion 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.	The organization have allocated adequate resources for implementation of AWS program. AWS team has been provided trainings on AWS standards. The team includes motivated individuals from different departments and S&E Ms. Sidra Ehsan (NCE, Safety & Environment Manager) has been nominated as AWS lead and focal person. Site S&E Manager is responsible for identification of water related legal requirements and monitoring their compliance.
Criterion 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.	Site has identified water stewardship initiatives with timelines. The initiatives are focused on water governance, sustainable water balance, water quality and status of other water related important areas.
	2.3.2 A water stewardship plan shall be identified, including for each target: - How it will be	Water stewardship is available and found adequate.

	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.	
Criterion 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.	Site has established a procedure to adapt or mitigate to identified water risks. Procedure found appropriate with the requirements of standard.
STEP 3: Implement		

Criterion 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.	The water related legal compliance is being monitored on regular basis, EPA has defined quarterly monitoring on priority effluent quality parameters. However, site is monitoring effluent quality on monthly basis as a good practice. Well water and product water quality is also being monitored in addition to effluent water quality. All the water quality results were found in compliance with requirements. The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene.
	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.	Underground high saline water conversion into for Drinking water via proficient reverse osmosis system. Raw water extraction is done from deep wells which contain saline water which cannot be used without industrial treatment. This makes fresh surface water more available to local population.
Criterion 3.2	Implement system to comply with water-related legal and regulatory requirements and respect water rights.	
	3.21 A process to verify full legal and regulatory compliance shall be implemented.	The water related legal compliance is being monitored on regular basis, EPA has defined quarterly monitoring on priority effluent quality parameters. However, site is monitoring effluent quality on monthly basis as a good practice. Well water and product water quality is also being monitored in addition to effluent water quality. All the water quality results were found in compliance with requirements.
	3.2.2 Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including	The compliance monitoring mechanism is in place.

	Indigenous peoples, shall be implemented.	
Criterion 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.	Key Water Saving Projects: Rainwater Harvesting and Drinking Water Filters at Girls' School Soil Moisture Sensors Installation World Water day for awareness Monsoon Tree Plantation Drive, 2020. 5000 trees were planted in various locations of Islamabad Water Sense Project at NARC Caring for Water and WASH Sessions MoU with MoCC for Tree Plantation
	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.	The company (Nestle) has identified the site location as water stressed region (not water scars region) and set benchmarks/targets for its water consumption. Many water relater initiative have been implemented for improvement in site water consumption targets. Site water consumption
	3.3.3 Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.	This is NA as no legal binding is required
Criterion 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.	The quality of source water is monitored. The monitoring results shows quality degradation in term of conductivity. However, values are in safe range. Site management is engaged in activities to improve water related areas. These activities are focused on reducing the water withdrawal and adopting best practices to avoid water quality degradation. Static and dynamic depth of water table is being monitored on annually and daily basis respectively.

	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.	Water quality test reports are available and all paramenters found in safe range
Criterion 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.	
Criterion 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	The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene.

	hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.	
	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.	Records of water quality test reports and self assessment (WASH) were available. Also all results found in compliance
Criterion 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.	Implementation of Water stewardship plan verified. Found compliant.
	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.	The standard requirements related to indirect water use has been properly addressed, and communication with suppliers and service provider is done. They have list of outsources services like Following is the list OF OUTSOURCED SERVICES USING WATER PET Resin by Novatex- Water is used in cooling towers for preform manufacturing and also for yarn manufacturing. Water consumption data not shared. HOD CAPS by ATM - ATM vendor has water usage in processing area for cooling of hydraulic oil and molds.
Criterion 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.	Extension of wastewater line was done jointly by Nestle Islamabad Grains. All documentation was appropriately maintained.
Criterion 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.	For better water governance, Nestlé conducts stakeholder consultation as well as local population survey. Action plan is implemented which helps to improve AWS outcomes
	3.9.2 Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.	Site has installed adequate instrumentation on water lines and area wise water consumption is being monitored and recorded. On the basis of site water consumption and well water extraction data, site water balance is calculated and recorded on weekly basis.
	3.9.3 Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	Islamabad factory performed detailed chemical analysis of aquifer water, the salinization of the aquifer may take place along with the increase of trace elements (As, B, F…). All those quality parameters are potentially related to one another. Heavy metals are less than 0.1 ppm in aquifer water.

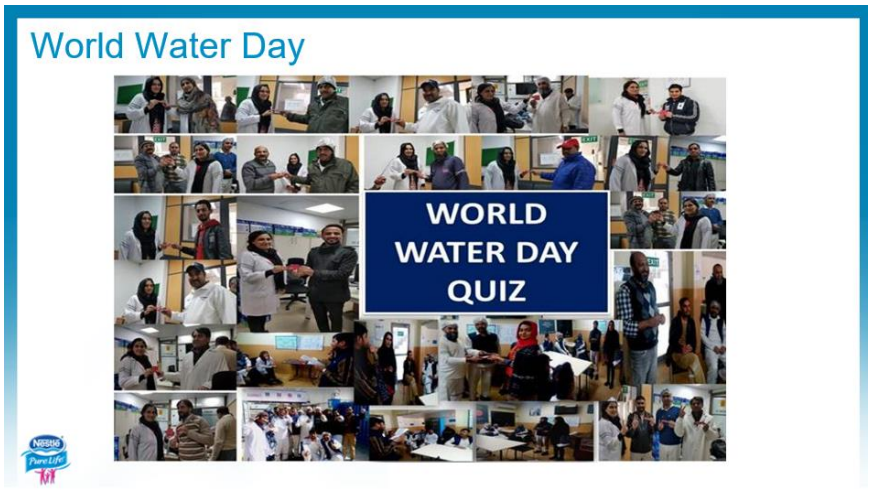
	3.9.4 Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.	Site has always considered water as priority and budget is allocated for water saving projects, hydrogeological study, risk mitigation and stakeholder management (Karachi grains) and resource trainings etc Cost: Water saving Projects: 1. Identified via water mapping 2. Implemented with project schedule 3. Committed results are delivered 4. Regular monitoring of performance (Recovery RO) Water saving projects help to increase life of water resources.
	3.9.5 Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	The site has adequate arrangements to ensure access to safe drinking water, sanitation and hygiene (WASH) for all workers. Site is also using a self-assessment tool for evaluating access to water sanitation and hygiene (WASH) at work place. It covers the workplace facilities related to water supply, sanitation and hygiene. Records of water quality test reports and self assessment (WASH) were available. Also all results found in compliance 
STEP 4: Evaluate		
Criterion 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.	
	4.1.2 Value creation resulting from the water stewardship plan shall be evaluated.	Improved water ratios by 21 % as from 2013 to 2020.
	4.1.3 The shared value benefits in the catchment shall be identified and where applicable, quantified.	Water saved is water which is not extracted from catchment enhancing catchment life with respect to quantity and quality. Hence slowing down the impact of salinization ion catchment. Installation of Sewerage treatment plant at factory level to further enhance quality of water discharge at catchment level.
Criterion 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.	No water related emergency incident or extreme event occurred, hence no such evaluation available.
Criterion 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.	miniutes of meetings with government official, pictures, progress report and interviews with stakeholders
Criterion 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.	Progress was evaluated during meetings, Progress charts were available. No need of changes was identified.
STEP 5: communication and disclose		
Criterion 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.	They have documented Internal Procedure for Alliance for watersteward ship, They explained all 5 steps. They have also Internal team for Nestle Islamabad like AWS Lead, Corporate Public affair, AWS Link Nestle water, Factory S&E Manager.
Criterion 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	The organization has organized and participated in many event to share & consult its water stewardship performance with the stakeholder. Some of these activities are as follows: Creating shared value program

	AWS Standard outcomes, shall be communicated to relevant stakeholders.	Tree plantation sessions Water governance meetings with government officials Trainings and awareness sessions etc.
Criterion 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 disclosed on web portal
Criterion 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	Yes disclosed on web portal

	efforts made to address these challenges shall be disclosed.	
	5.4.2 Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.	Tree plantation in collobration with authorities under clean green pakistan initiative. Nestlé SKP Factory has planted total 500 trees in various location of ISlamabad with employees, neighboring industries and authorities, trees growth is also being monitored via audits. World Water Day Celebration with Employees, Neighboring School Kids & Neighboring Industries Water Awareness Session with Community and Neighboring Industries  AWS Awareness Session & Water Resource Training For Employees 
Criterion 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.	No complaint and no water related legal noncompliance event reported during last years.
	5.5.2 Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.	NA. As there is not violation and no action is required for future
	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.	N/A as no violation observed

7 Appendix B Competence of team members

Mr Tariq Qumar	Bureau Veritas Certification, Pakistan	Team Lead, approved Local AWS Lead Verifier, He holds a Bachelor Degree in Agriculture and M.Sc in Agriculture Engineering. Before joining BV, he gained 12 years of working experience in food industries including water industries He passed the training and obtained the certificate of AWS Verifier and Lead Auditor for SA8000 and ISO 14001. He has good knowledge and fluency in Urdu & English languages.

Mr Imran Altaf Bhatti	Bureau Veritas Certification, Pakistan	Team Member, approved Local AWS source, He holds a Bachelor Degree in Mechanical Engineering and Masters in Business Administration (MBA). Before joining BV, he have 18 years of diversified experience in different industries including engineering services, foods, water and certifications. He is Lead Auditor for SA8000, ISO 14001, ISO 50001 and OHSAS 18001.He is also Lead verified for CDM. He has good knowledge and fluency in Urdu & English languages.

Ms May Huang	Bureau Veritas Certification, China	Team Member, approved AWS Lead Verifier, She holds a Bachelor Degree in Environmental engineering in Electrics and hydraulics of Wuhan University and a Master of Environmental Chemistry. Before joining BV, she gained 7 years of technical working experience in water treatment and environment protection. She pass the training and obtained the certificate of AWS Verifier and also Lead Auditor for ISO 14001.