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1. Client and Certificate Details

1.1 Client details:


Client Name: Nestle Pakistan Limited, Port Qasim Factory, Karachi	Audit location: A-23, North West Industrial Zone, Port Qasim, Karachi
Activities/Processes: Bottled Water Manufacturing Company	Contact person: Sidra Ehsan
AWS Reference Number: AWS-000102	Type of audit: AWS Audit
Audit date(s): March 03,04 -2020	Audit standard : AWS Core criteria
Proposed date of next audit: March , 2021	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
Imran Altaf Bhatti	Pakistan	0092-300-8290788	Local Support	English+Urdu
Tahir Masood	Pakistan	0092-301-8253914	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	It consists of the Malir Basin (2,060 km ²), combined with the little basins to the south (260 km ²), separated from the Malir Basin by an elevated ridge, striking from ENE to WSW and also dipping in this direction.
Summary of shared water challenges	The catchment has only one major shared challenge: 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.

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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	<p>A documented layout of site is available. Operational boundaries includes the existing facility.</p> <p>Site have deep wells as only water source for production of water bottles. Site has 3 Deep Wells. 2 operational and 1 is back up well. Raw water is saline and is treated via RO. Deep Wells and Water treatment are mapped on master layout. PQA provides water around 30-50 m³/day which is used in social block. PQA receives water from KWSB. KWSB main source of water is Indus River (Kenjhar lake) and Hub Dam. The drains from different areas in site comes to single main drain and discharged in drain. Discharge point is marked on Master Layout. Ultimate receiving body is Sea</p> <p>The watershed boundary is defined based on the catchment areas:</p> <p>It consists of the Malir Basin (2,060 km²), combined with the little basins to the south (260 km²), separated from the Malir Basin by an elevated ridge, striking from ENE to WSW and also dipping in this direction. The SW part of the Malir Basin has been removed, because it is assumed that this part does not contribute to the recharge of the Nestle Factory area.</p> <p>The water resources of the catchment are monitored regularly to keep sustainable water balance-WRM.</p> <p style="color: red;">Site has 3 Operational Deep Wells (DW 4 (back up),10,11) rest are non-operational. A nonconformance was raised that the DW4 back well was not identified over site layout plan (1.1.1)- NCR 01 raised and closed during audits</p> <p style="color: red;">Water risks faced by the site were identified, and prioritized, however, it was not performed on the basis of likelihood and severity of impact. –NCR 02 raised and closed during audit</p> <p style="color: red;">Current and potential degree of influence with site and stakeholder not identified- NCR raised and closed during audit</p>	<p>CORE</p> <p>1. 1</p> <p>1. 1. 1</p> <p>1. 2</p> <p>1. 2. 1</p>



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<p>2 Commit and Plan</p>	<p>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 in joint venture with public sector and neighbouring industries.</p> <p>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.</p> <p>Site management is working with government and non-government bodies for identification, planning and execution of water related projects to mitigate shared catchment challenges. Site has identified a team of AWS champions with their roles and responsibilities. Site S&E Manager is responsible for identification of water related legal requirements and monitoring their compliance.</p> <p>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.</p> <p>Site has developed an incident and response plan which includes the undesired water related incidents and emergencies.</p>	<p>CORE</p> <p>2. 1</p> <p>2. 1. 1</p> <p>2. 1. 2</p> <p>2. 1. 3</p> <p>2. 1. 4</p> <p>2. 2</p> <p>2. 2. 1</p> <p>2. 2. 2</p> <p>2. 3</p> <p>2. 3. 1</p> <p>2. 3. 2</p> <p>2. 3. 3</p> <p>2. 3. 4</p> <p>2. 3. 5</p> <p>2. 3. 6—2. 7. 3</p>
<p>3 Implement</p>	<p>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.</p> <p>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.</p> <p>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 initiatives have been implemented for improvement in site water consumption targets. Site water consumption have been reduced from 1.63 to 1.55 m³of water/ton of production from 2018 to 2020.</p> <p>The quality of source water is monitored. The monitoring results</p>	<p>CORE</p> <p>3. 1</p> <p>3. 1. 1</p> <p>3. 2</p> <p>3. 2. 1</p> <p>3. 2. 2</p> <p>3. 3</p> <p>3. 3. 1</p> <p>3. 4</p> <p>3. 4. 1</p>



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	<p>shows quality degradation in term of conductivity. 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 annual and daily basis respectively.</p> <p>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.</p>	
<p>4 Evaluate</p>	<p>The performance against water stewardship plan is continuously being monitored. Following are some of the achievements during year 2019</p> <ul style="list-style-type: none"> - Water consumption reduction from 1.63 to 1.55 m³of water/ton of production. - 30 million PKR saving from water related areas in 2019 <p>No water related emergency incident or extreme event occurred, hence no incident report available.</p> <p>The water stewardship plan was shared in an event organized in LUMS “Nestlé Pakistan Water Plan”. The feedback was also taken from key participants including stakeholder and technical experts. Overall feedback was positive about the planned water related initiatives.</p> 	<p>CORE</p> <p>4. 1</p> <p>4. 1. 1</p> <p>4. 1. 2</p> <p>4. 2</p> <p>4. 2. 1</p> <p>4. 2. 2</p> <p>4. 2. 3</p> <p>4. 3. 1</p> <p>4. 3. 2</p> <p>4. 3. 3</p> <p>4. 4</p> <p>4. 4. 1</p> <p>4. 4. 2</p> <p>4. 5</p> <p>4. 5. 1</p> <p>4. 5. 2</p> <p>4. 6</p>
<p>5 communication and disclose</p>	<p>The organization has organized and participated in many events to share & consult its water stewardship performance with the stakeholder. Some of these activities are as follows:</p>	<p>CORE</p> <p>5. 1</p> <p>5. 1. 1</p>

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	<p>Creating shared value program Tree plantation sessions Water governance meetings with government officials Trainings and awareness sessions etc.</p> <p>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. No complaint and no water related legal noncompliance event reported during last years</p>	<p>5. 1. 2 5. 1. 3 5. 2 5. 2. 1 5. 3 5. 3. 1 5. 4 5. 4. 1</p>
<p>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.</p>		
<p>Comments on points of weakness & opportunities for improvement</p>	<p>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.</p>	
<p>Comments on points of strengths</p>	<ol style="list-style-type: none"> 1. The company has good compliance with legal requirement. 2. The documentation is impressive and also retrieve ability is excellent 3. 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. 4. The company involved stakeholders to take part in water awareness education, meeting and seminars. 5. Supply resource to support AWS management establishing, planning, implementation and performance disclose 	
<p>Audit Conclusion:</p>	<p>No major NCR found however three minor NCRs have been raised and closed during audit.</p>	<p>Tariq Qamar (TL) Concluded By</p> <p>Recommended By</p>
<p>Recommendation for Certification & AWS Core, AWS Gold, or AWS Platinum Certified to be awarded</p>	<p>It is recommended the company to be registered for AWS certification (Core level).</p>	

4. Audit Observations, Findings and Conclusions

Main processes/ activities / places inspected	Names & Dept . of people interviewed	Number of NCRs
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1 Gather and understand	AWS Lead + S&E Manager (Sidra Ehsan) Legal Manager (Waqas Hussain) AWS Coach (M Hanif) QA Manager (Zahoor Ahmed) Human Recourse Manager (Beenish Saba)	3
2 Commit and Plan	AWS Sponsor + Factory Manager (Nasir Mansoor) AWS Lead + S&E Manager (Sidra Ehsan) Legal Manager (Waqas Hussain) AWS Coach (M Hanif) QA Manager (Zahoor Ahmed) Human Recourse Manager (Beenish Saba) Public Affairs Manager (Rahat Hussain)	Nil
3 Implement	AWS Sponsor + Factory Manager (Nasir Mansoor) AWS Lead + S&E Manager (Sidra Ehsan) Legal Manager (Waqas Hussain) AWS Coach (M Hanif) QA Manager (Zahoor Ahmed) Human Recourse Manager (Beenish Saba) Public Affairs Manager (Rahat Hussain)	Nil
4 Evaluate	AWS Sponsor + Factory Manager (Nasir Mansoor) AWS Lead + S&E Manager (Sidra Ehsan) Legal Manager (Waqas Hussain) AWS Coach (M Hanif) QA Manager (Zahoor Ahmed) Human Recourse Manager (Beenish Saba) Public Affairs Manager (Rahat Hussain)	Nil
5 communication and disclose	AWS Sponsor + Factory Manager (Nasir Mansoor) AWS Lead + S&E Manager (Sidra Ehsan) QA Manager (Zahoor Ahmed) Human Recourse Manager (Beenish Saba) Public Affairs Manager (Rahat Hussain)	Nil
Total		3

Major Non Conformity

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

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Minor Non Conformity

No.	AWS requirement	Description of NC	Client's response and Documentation provided	BV assessment
1	1.1.1	Site has 3 Operational Deep Wells (DW 4 (back up),10,11) rest are non-operational. A nonconformance was raised that the DW4 back well was not identified over site layout plan.	Site has developed a revised layout plan and DW4 is identified.	Closed
2	1.7.1	Water risks faced by the site were identified, and prioritized, however, it was not performed on the basis of likelihood and severity of impact.	Site has revised the risk assessment on the basis of likelihood and severity of impact.	Closed
3	1.2.2	Current and potential degree of influence with site and stakeholder not identified	Current was identified while potential was not identified and now identified .	Closed


Observations

NO.	AWS requirement	Description of Observations	Client's response and Documentation provided	BV assessment
	4.4.1	Company needs to establish document control mechanism to improve identification and traceability of documents. Currently dates of revision of stewardship plans were not available	Water stewardship plan is now controlled as attached	
		Nil		

5 Surveillance schedule and if samplings required:

Default surveillance level to be annual on-site audit will be due in March 2021.

5. Disclaimer

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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.	
	<p>1.1.1The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:</p> <ul style="list-style-type: none"> - 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. 	<p>A documented layout of site is available. Operational boundries includes the exisisting facility.</p> <p>Site have deep wells as only water source for production of water bottles. Site has 3 Deep Wells. 2 operational and 1 is back up well. Raw water is saline and is treated via RO. Deep Wells and Water treatment are mapped on master layout. PQA provides water around 30-50 m3/day which is used in social block. PQA receives water from KWSB. KWSB main source of water is Indus River (Kenjhar lake) and Hub Dam. The drains from different areas in site comes to single main drain and discharged in drain. Discharge point is marked on Master Layout. Ultimate receiving body is Sea.</p> <p>The watershed boundary is defined based on the catchment areas:</p> <p>It consists of the Malir Basin (2,060 km²), combined with the little basins to the south (260 km²), separated from the Malir Basin by an elevated ridge, striking from ENE to WSW and also dipping in this direction. The SW part of the Malir Basin has been removed, because it is assumed that this part does not contribute to the recharge of the Nestle Factory area.</p> <p>On the basis of the information described in section 5 of Hydrogeological study performed by Fugro Consult GmbH (FCG). It was decided to extend the study area outside the original 5 km radius. The previous reports (NESPAC, 2009) and (Schlumberger Water Services, 2010) mention that the deeper groundwater is less saline than the shallow groundwater and conclude that recharge must occur from the north.</p> <p>Therefore the hydrogeological basin of the Malir River to the north may well play a role in the investigation. (scope extended</p>



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		<p>up to 18 to 20 km). The water resources of the catchment are monitored regularly to keep sustainable water balance-WRM.</p> <p>Site has 3 Operational Deep Wells (DW 4 (back up),10,11) rest are non-operational. A nonconformance was raised that the DW4 back well was not identified over site layout plan (1.1.1)- NCR 01 raised and closed during audits</p>
Criterion 1.2	Understand relevant stakeholders, their water related,challenges, and the site's ability to influence beyond its boundaries.	
	<p>1.2.1 Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:</p> <ul style="list-style-type: none"> - 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. 	<p>The organization have identified the stake holders including general public, community, neighboring industry, business and legal authorities.</p> <p>Poll survey also planned for 4 to 10km radius covering male and female, survey area was closest area to the Nestle PQ factory in Bin Qasim Town, Within that area the nearest residential area are with 4 to 10 kilometers respectively. On the basis of community survey and technical surveys, shared water related challenges of the catchment have been identified. Stakeholders and their water related challenges were identified via Community relations process 2.0.</p> <p>The shared challenges have been analyzed and discussed with concerned authorities. Only shared water challenge is water quality degradation.</p> <p>List of stakeholders was available and maintained. Authorities within area of influence also covered in stakeholder list like PQA, BAQATI and local Police.</p>
	<p>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.</p>	<p>Site have deep wells as only water source for production of water bottles. Site has 3 Deep Wells. 2 operational and 1 is back up well. Raw water is saline and is treated via RO. Deep Wells and Water treatment are mapped on master layout. PQA provides water around 30-50 m3/day which is used in social block. PQA receives water from KWSB. KWSB main source of water is Indus River (Kenjhar lake) and Hub Dam. The drains from different areas in site comes to single main drain and discharged in drain. Discharge point is marked on Master Layout. Ultimate receiving body is Sea. Nestle PQF has wastewater treatment plant and discharge treated water to the sea</p> <p>Current and potential degree of influence with site and stakeholder not identified- NCR raised and closed during</p>

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		audit
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.	Site water stewardship plan is available, have SMART action items. Site has developed an incident and response plan which includes the undesired water related incidents and emergencies.
	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.	Deep Wells capacity (72 m3/hr): 60% utilized. 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 appropriate, seasonal, high and low variances shall be quantified.	Overall the aquifer system in PQ area is highly saline (conductivity 8,000 -20,000 microS/cm). Based on our operational monitoring, it is clear the high salinity comes from the upper aquifers, which contributes to increase the conductivity in some of our production wells. Major Challenge in underground water is of high conductivity which are contribution from major elements (Ca , Na and respective Sulphates etc). PQ 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.



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	<p>1.3.5 Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.</p>	<p>Site layout is also established for Chemical storage area-store chemicals with containment Machine oils Waste disposal facilities-PQ 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</p>
	<p>1.3.6 On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.</p>	<p>Deep wells are on site IWRA. 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.</p>
	<p>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.</p>	<p>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. <u>Key Water Saving Projects:</u> 2008 – 2012: Reducing Operational losses on Fillers and Washer 2013: Detailed water map was done followed by GPI exercise 2014: Optimization of CIP, Backwash & RO flushing Sequences 2015: New 10µ pre-filter + GFS tank installation 2016: Installation of Recovery RO-Saved 28 Mio Lit/annum and DMAIC on HOD Filler Losses 2017: Reduction in Retail Line Diversions via new ozone injection point and Recovery RO Water Usage in GFS tank 2018: Recovery of Water from market Returned leak bottles 2019: Increase in RO Global Recovery from 85.7% to 90% via raw water feed conductivity improvement and shifting to DDCD CIPs for backline</p>



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	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.	The standard requirements related to indirect water use has been properly addressed. <ul style="list-style-type: none"> • Primary inputs are PET resin and HOD Caps manufactured by Novatex and ATM respectively. • Within catchment (slightly) one supplier of packaging material exist that is Novatex. PQF receives PET resin from Novatex which is used in injection molding. Source of water is KWSB) • Laundry is outsourced and vendor has its set up in Korangi. Source of water is KWSB.
	1.4.2 The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	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. Laundry Services by Bubbles laundry Services (only 1 setup in KHI) - For washing clothes. Around 700 clothes are washed per day. (estimated water consumption is 1m3/day ~300 m3/year)
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 Karachi Port Qasim Area is challenging in the light of water supply. The climate and the huge population of greater Karachi put a high strain on the water resources. Most water supplied/used is surface water from the Indus and the Hub Dam. Groundwater is used, illegally or not, by private households, farmers and mafia-like structures reselling water. Bigger industries also rely on their own tubewells, basically because they cannot afford to rely on the poor quality of water



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		<p>supply infrastructure. Surface water quality is very poor due to pollution and lack of treatment capacity and infrastructure. Shallow groundwater is very saline and not usable for domestic (drinking) water supply</p> <p>During stakeholder consultation Nestle PQF contacted authorities, they are satisfied with water related areas. Hydrogeological studies cover in detail the existing policies as well as governance in catchment.</p> <p>Nestlé Port Qasim Factory is closer to Sea therefore, underground water reservoirs contain Saline water which is not usable without industrial treatment</p> <p>This allows public to have first and foremost access to drinking water supplied by local authorities (ex. KWSB)</p>				
	<p>1.5.2 Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.</p>	<p>Site has identified water related legal and regulatory requirements. They are</p> <ul style="list-style-type: none"> Sindh Environmental Protection Act, 2014 Disaster Risk Management Plan Sindh Province, Nov 2008 Sindh Irrigation and Drainage Authority Act, 1997 THE SINDH LOCAL GOVERNMENT (AMENDMENT) ACT, 2019 The WAPDA Act (1958) The Sindh WUA Ordinance 1982 Sindh Irrigation & Drainage Authority Act 1879 Effluent Discharge Tariff Pakistan Environmental Protection Act 1997 Indus river system authority act 1992 				
	<p>1.5.3 The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.</p>	<p>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.</p> <p>The average recharge of 3 mm over the total area of 2324 km² amounts to 7 Mm³/year or 800 m³/h.</p> <p>The total abstraction in the aquifer system estimated from the well inventory amounts to 6.8 Mm³/y. This volume may be underestimated as it does not take into account all the uncontrolled groundwater abstractions potentially on-going in the basin.</p> <p>Nestle Waters withdrawals, is about 300,000 m³/year, which corresponds to less than 5% of the total known abstracted volumes from groundwater in the basin.</p>				
	<p>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</p>	<p>Groundwater recharge (Fugro, 2015) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Catchment area =</td> <td style="text-align: right;">2324 km²</td> </tr> <tr> <td>Natural recharge =</td> <td style="text-align: right;">6.95 Mm³/y</td> </tr> </table> <p>Groundwater usage :</p>	Catchment area =	2324 km ²	Natural recharge =	6.95 Mm ³ /y
Catchment area =	2324 km ²					
Natural recharge =	6.95 Mm ³ /y					



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	<p>for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.</p>	<p>Port Qasim Factory = 0.3 Mm³/y (< 5 % of total usage) Other usages = 6.79 Mm³/d (farming + industrial+ domestic) Total abstraction = 6.94 Mm³/y Water balance is neutral but fast growth of the area may generate overdraft and salinization of the aquifers in the future</p> <p>Groundwater quality : Shallow aquifer : high salinity (EC = 20 mS/cm) Deep aquifer : lower salinity (EC = 8.5 mS/cm)</p>
	<p>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.</p>	<p>Community in the catchment area (around 2 mio) is dependent mainly on municipal water for social purposes and on Malir river for harvesting Malir River is the largest basin in Karachi with total area of 2,254 Km. It passes through the city of Karachi from North East to the Centre and drains into the Arabian Sea. In the rainy season, this river experiences heavy water flow, with millions of gallons emptying into the Arabian Sea. The Malir Dam is a barrage regulating flow and flooding of the river, preserving a reservoir during seasonal droughts. The past years have witnessed heavy floods in the River Malir floodplain. A great potential for rainwater harvesting exists in Malir River and its tributaries. For the past 300 years, indigenous bunds have been used for rainwater harvesting in the area. The agriculture in the area is rainfed and entirely dependent on seasonal rains. For a season, the indigenous bunds serve as a reservoir while simultaneously recharging the underground aquifers gradually. For the recharge of groundwater, the government of Sindh has constructed many small check dams during the last 25 years. Owing to the large size of sub-catchment areas, land use, soil types and land cover, Rivers Mol and Khadeji contribute the maximum runoff to the Malir River.</p> <p>In the area around River Malir Basin, due to insufficient drainage capacity, the storm water tends to stay for longer period of time, damaging the property and infrastructure in the process. The water quality of River Malir is severely contaminated due to the unchecked discharge of untreated municipal and industrial wastewater</p>
	<p>1.5.6 Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.</p>	<p>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.</p>



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	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.	Site has addressed the requirement of standard and stated as It is expected that the mineralization of the deeper groundwater will increase in time through the intrusion of sea water, because of the negative hydraulic pressure gradient land inwards and mixture of water over the whole thickness of the inhomogeneous but unified aquifer system. Their level of mineralization will eventually reach the level of mineralization of the shallower wells (DW 3 and DW 4). This process will be accelerated by increasing abstraction of groundwater through projected industrial development. This implicates that the drilling of deep wells is on the long term no guarantee for the abstraction of relatively fresh water and is therefore not recommended. This scenario can be potentially slowed down by an improvement of the municipal surface water supply from the Indus River and the Hub Dam, which will decrease the incentive to drill (illegal) private wells and the abstraction rate of the groundwater decreases.
	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 PQF and Tri-Pack 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.	<p>Risk :</p> <ul style="list-style-type: none"> • Increase in salinity of deep aquifer (Quality) • Contamination • Waste water line not meeting Sea as sea went behind <p>Water risks faced by the site were identified, and prioritized, however, it was not performed on the basis of likelihood and severity of impact. –NCR 02 raised and closed during audit</p>



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	<p>1.7.2 Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.</p>	<p>Actions :</p> <ul style="list-style-type: none"> • Management of wells operation w.r.t GFS tank levels and sequence of well startup (Well startup SOP) • Strong monitoring of the groundwater quality of the pumping wells at PQF (WRM) to monitor the development of mineralization, as well as potential trends of changes in chemical composition of the groundwater. • DW-4 monitoring as observation well – to get data on the water levels and quality of water. This could potentially be the start of a regional groundwater monitoring network, possibly in corporation and with support of respective water related authorities • Possibility to extend waste water line to nearest canal
<p>Criterion 1.8</p>	<p>Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.</p>	<p>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 Port Qasim 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.</p> <p>Water Awareness Session with Community and Neighboring Industries</p> 
	<p>1.8.1 Relevant catchment best practice for water governance shall be identified.</p>	<p>For better water governance, Nestlé conducts stakeholder consultation as well as local population survey. Action plan is made which helps to improve AWS outcomes</p>
	<p>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.</p>	<p>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.</p>

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	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 implement the Standard.	Site has addressed the requirement of standard, and all required commitments are publicly disclosed. http://www.nestle.pk/csv/water/alliance-for-water-stewardship . This is all verified during interview with stakeholder.
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.



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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: <ul style="list-style-type: none"> - How it will be measured and monitored - Actions to achieve and maintain (or exceed) it - Planned timeframes to achieve it - Financial budgets allocated for actions - Positions of persons responsible for actions and achieving targets - Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes. 	Water stewardship is available and found adequate.
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.



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		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.	
	3.2.1 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. NOC from Sindh EPA is for 400 m ³ / day of finished product = 17 tons / hour NOC from Sindh EPA is for 70 tons / hour of finished product, keeping in mind 5 – 10 years market demand
	3.2.2 Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.	The compliance monitoring mechanism is in place.
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.	<u>Key Water Saving Projects:</u> 2008 – 2012: Reducing Operational losses on Fillers and Washer 2013: Detailed water map was done followed by GPI exercise 2014: Optimization of CIP, Backwash & RO flushing Sequences 2015: New 10µ pre-filter + GFS tank installation 2016: Installation of Recovery RO-Saved 28 Mio Lit/annum and DMAIC on HOD Filler Losses 2017: Reduction in Retail Line Diversions via new ozone injection point and Recovery RO Water Usage in GFS tank



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		<p>2018: Recovery of Water from market Returned leak bottles 2019: Increase in RO Global Recovery from 85.7% to 90% via raw water feed conductivity improvement and shifting to DDCD CIPs for backline</p>																						
	<p>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.</p>	<p>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 have been reduced from 1.63 to 1.55 m³of water/ton of production from 2018 to 2019.</p> <div data-bbox="772 853 1490 1126" data-label="Figure"> <table border="1"> <caption>Water Ratio (ton/ton) Improvement 2008-2019</caption> <thead> <tr> <th>Year</th> <th>Water Ratio (ton/ton)</th> </tr> </thead> <tbody> <tr><td>2008</td><td>5.10</td></tr> <tr><td>2009</td><td>4.10</td></tr> <tr><td>2010</td><td>2.90</td></tr> <tr><td>2011</td><td>2.68</td></tr> <tr><td>2012</td><td>2.60</td></tr> <tr><td>2013</td><td>2.22</td></tr> <tr><td>2014</td><td>1.97</td></tr> <tr><td>2015</td><td>1.86</td></tr> <tr><td>2016</td><td>1.87</td></tr> <tr><td>2017</td><td>1.67</td></tr> </tbody> </table> </div>	Year	Water Ratio (ton/ton)	2008	5.10	2009	4.10	2010	2.90	2011	2.68	2012	2.60	2013	2.22	2014	1.97	2015	1.86	2016	1.87	2017	1.67
Year	Water Ratio (ton/ton)																							
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	<p>3.3.3 Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.</p>	N/A																						
Criterion 3.4	Implement plan to achieve site water quality, targets.																							
	<p>3.4.1 Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.</p>	<p>The quality of source water is monitored. The monitoring results shows quality degradation in term of conductivity. However, values are in safe range.</p> <p>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.</p>																						
	<p>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.</p>	<p>Water quality test reports are available and all paramenters found in safe range</p>																						
Criterion 3.5	Implement plan to maintain or improve the site's, and/or catchment's Important Water-Related Areas.																							


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	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.	Site has initiated some new project to reduce its water consumption and following water conservation best practices. Site water consumption has been reduced from 1.63 to 1.55 m ³ of water/ton of production.
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 hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.	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.
	3.6.2 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.	<p>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 outsourced services like Following is the list OF OUTSOURCED SERVICES USING WATER</p> <p>PET Resin by Novatex- Water is used in cooling towers for preform manufacturing and also for yarn manufacturing. Water consumption data not shared.</p> <p>HOD CAPS by ATM - ATM vendor has water usage in processing area for cooling of hydraulic oil and molds.</p> <p>Laundry Services by Bubbles laundry Services (only 1 setup in KHI) - For washing clothes. Around 700 clothes are washed per day. (estimated water consumption is 1m³/day ~300 m³/year)</p> <p>Verified email correspondence, pictures and presentation with suppliers or services providers.</p>





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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 PQF and Karachi 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.	<p>For better water governance, Nestlé conducts stakeholder consultation as well as local population survey. Action plan is implemented which helps to improve AWS outcomes</p> <p>Stakeholder Interviews – 2019-20</p>  <p>Shuja Mill (Sufi oil) Commisioner Karachi- Iftikhar shallwani Water Treatment operator- Nestle</p> <p>Universal Cables Pak petro chemicals Port Qasim Authority</p>
	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.	PQ 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:

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		<ol style="list-style-type: none"> 1. Identified via water mapping 2. Implemented with project schedule 3. Committed results are delivered 4. Regular monitoring of performance (Recovery RO) <p>Water saving projects help to increase life of water resources.</p>
	3.9.5 Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	<p>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.</p> <p>Records of water quality test reports and self assessment (WASH) were available. Also all results found in compliance</p>
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.	<p>The performance against water stewardship plan is continuously being monitored. Following are some of the achievements during year 2019</p> <ul style="list-style-type: none"> - Water consumption reduction from 1.63 to 1.55 m³of water/ton of production. - Expectation to build water filtration plant by school teacher and community elder, Site provided Water bottles to School - Shared waste water line with Karachi grains to be protected from other industries waste. - 50% cost shared in shared wastewater line maintenance with Karachi Grains. - Tree plantation on main PQ green belt-On going <div style="text-align: center; background-color: #006400; color: white; padding: 5px;"> Tree Plantation In Collaboration With Authorities Under Clean Green Pakistan Initiative </div> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Port Qasim Au</p> <ul style="list-style-type: none"> • Mr. Muhammad Siddi (Director Environment) • Mr. Mirza Azhar Iqbal (Manager Environment) • Mr. Sham Lal Sharma (Deputy Manager VEVB) • Mr. Rashid Mustafa (Sample Collector) • Mr. Zeeshan Bari (Boom Operator) <p>Sindh EPA</p> <ul style="list-style-type: none"> • Mr. Muhammad Siddi (Inspector) • Mr. Muhammad Siddi (Inspector) • Mr. Muhammad Siddi (Inspector) </div> </div>

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	4.1.2 Value creation resulting from the water stewardship plan shall be evaluated.	Total 30 mio PKR saved through water saving projects in 2019
	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
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.	minutes 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 PQF 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 AWS Standard outcomes, shall be communicated to relevant stakeholders.	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




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		<p>Tree plantation sessions Water governance meetings with government officials Trainings and awareness sessions etc.</p>
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 efforts made to address these challenges shall be disclosed.	Yes disclosed on web portal
	5.4.2 Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.	<p>Tree plantation in collaboration with authorities under clean green pakistan initiative. Nestlé Port Qasim Factory has planted total 10,000 trees in 2019 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</p> <p>World Water day Celebration - 22nd March 2019</p> <p>WWD Celebration with Employees, Neighboring School Kids & Neighboring Industries Information session – Presentation on Caring for AWS</p> <p>Poster Competition Cake Cutting Tree Plantation Poem Competition</p> <p>AWS Awareness Session & Water Resource Training For Employees Beach Cleaning at Sea View Karachi- 05th Feb & 08th June 2019</p>

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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.	N/A
	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

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.

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Mr Tahir Masood	Bureau Veritas Certification, Pakistan	Team Member, approved Local AWS source, He holds a Masters degree in Environmental Sciences from University of Karachi. And he has also done attended Sustainable Water Resource Management course conducted by University of Karachi & University of Austria jointly. Before joining BVC, He has worked with United Registrar of Systems and Applus Velosi Pakistan in the field of EHS audits and environmental impact assessment studies. Almost 12 years of his professional experience in different industrial sectors including engineering services, foods, water, pharma, textile, ports etc. He is Lead Auditor for ISO 14001, ISO 45001 and OHSAS 18001. He has also qualifications fo Green House Gases Verifier - G40 - GHG Verification Scheme. 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.