

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

SITE DETAILS

Site: **Philip Morris Operations a.d. Nis.**
Address: Bulevar 12.februara 74, 18000, Nis, SERBIA
Contact Person: Milorad Raic
AWS Reference Number: AWS-000452
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core
Date of certification decision: 2023-Feb-15
Validity of certificate: 2026-Feb-15

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Initial Audit
Audit Start Date: 2022-Oct-18
Lead Auditor: Tanya Christensen
Audit team participants:
Debora Dermadi
Site Participants:
Milorad Raič, Sustainability Manager
Jasmina V. Mitrović, Corporate Sustainability
Jovan Piljević, Operations Intern
Saša Glozić, Factory Engineer
Jelena Preradović Stevanović, Sustainability & Corporate Affairs Lead
Igor Kroshko, Director

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

ADDITIONAL INFO

Summary of Audit Findings: A total of 7 findings were raised during the certification audit, 0 major non-conformities, 6 minor non-conformities, 1 observation.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 60 days of receipt of the audit report by 27 March 2023.

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

The audit team recommends certification of PMI Serbia at Core level pending approval of the corrective actions plan.

CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully submitted the corrective action plans addressing all findings. Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of Philip Morris Operations A.D. Nis against the AWS International Water Stewardship Standard Version 2. PMOP Serbia is located on the right side of the Nišava River in Niš, between two of the major boulevards of the industrial area of the city. The site covers an area of nearly 25 hectares, and it is connected to the municipal water infrastructures for the supply of water and discharge of waste water through the public sewage system. The city of Niš is located at the south of the country, and its population is close to 185,000 inhabitants. The site produces cigarettes and has a primary production area preparing the leaf tobacco and the secondary production area doing the 'making and packing'. There are numerous warehouses on the site as well as a complex of protected historical buildings. There is currently no WWTP in Nis or the PMOP site and wastewater is discharged untreated into the Nisava River, downstream from Nis. The City of Nis is in the process of constructing a WWTP for the city area and PMOP are planning on constructing an onsite WWTP to undertake primary treatment.

The PMI site is located within the Nišava River Basin in south-eastern Serbia and the water resources of the Nišava basin are surface water and groundwater. The hydrology of Nišava basin involves the interactions between surface flow of the Nišava river and its tributaries and groundwater.

The audit was conducted onsite on the 1-3 November 2022. The onsite site visit included the assessment of the PMI Serbia (PMOP) Production facilities and all water related infrastructure onsite.

The following external stakeholders were interviewed during the audit: Dusan Radivojevic (Director of KLER), Milija Mikulovic (IFM Director, project leader onsite) and Dejan Jordanovic (Head of Engineering and Investments Dept, Naisus).

FINDINGS

Observation	1
Minor	6

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

FINDING DETAILS

Finding No:	TNR-003111
Checklist Item No:	1.3.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2024-Jan-24
Checklist item:	Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped
Findings:	The site has not included the on-site well in the 2021 Sankey Diagram, even though it supplied 15,801 m3. It merely includes the contribution from municipal water.
Corrective action:	Include well water consumption to Sankey diagram.
Finding No:	TNR-003112
Checklist Item No:	1.3.3
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2024-Jan-24
Checklist item:	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.
Findings:	The water contributions from the on-site well (15,801 m3) have not been accounted for in the Sankey diagram.
Corrective action:	Include well water consumption to Sankey diagram. - The site shall include the water use from this well into the water balance.
Finding No:	TNR-001787
Checklist Item No:	1.5.5
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Nov-02
Checklist item:	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.
Findings:	The IWRA spreadsheet does not record sufficient details on the individual IWRAs. The site should consider visiting the sites to obtain more detailed information and explore opportunities of stakeholder engagement.
Corrective action:	We will conduct visual assessment and gather records of evidence from on field inspection. - The site is also required to assess and kept records of the statues of each IWRA. This should be used to identify rehabilitation projects.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

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Finding No: TNR-003125
Checklist Item No: 3.1.2
Status: In Progress - CA plan approved
Finding level: Minor
Due date: 2024-Jan-26
Checklist item: Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.
Findings: The site has indicated that identifying the water rights of others including Indigenous peoples does not apply to them, however, has provided no information on the process of how this conclusion is reached. No indicator in the Standard does not apply. The site is required to address this indicator.
Corrective action: Identify measures to respect water rights of others, including indigenous people.

Finding No: TNR-003126
Checklist Item No: 3.2.2
Status: In Progress - CA plan approved
Finding level: Minor
Due date: 2024-Jan-26
Checklist item: 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.
Findings: The site has indicated that identifying the water rights of others including Indigenous peoples where it is part of regulatory requirements does not apply to them, however, has provided no information on the process of how this conclusion is reached. No indicator in the Standard does not apply. The site is required to address this indicator.
Corrective action: We will illustrate the regulatory analysis showing the regulatory requirements in Serbia related to this topic.

Finding No: TNR-003129
Checklist Item No: 3.7.1
Status: Open
Finding level: Observation
Checklist item: Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.
Findings: The site can improve their water stewardship activities but setting a target in the WS Plan and working with the closest or most important supplier regardless of their location

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)



Audit Number: AO-000415

Finding No:	TNR-001811
Checklist Item No:	4.4.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Nov-03
Checklist item:	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.
Findings:	The site has captured valuable feedback from their shareholders on their water stewardship plan, but have not completed the final step of summarising it to feed into the next iteration of their WSP.
Corrective action:	We will conduct stakeholders questionnaire feedback assessment evaluation. - The site also need to incorporate any relevant information and lessons learned from the evaluations in this step and these changes to the Water Stewardship Plan shall be identified. Records of the evolution of the plan shall be kept.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)



Audit Number: AO-000415

Report Details

Report	Value
Report prepared by	Tanya Christensen
Report approved by	Mia Antoni-Naidoo
Report approved on (Date)	27 January 2023

Surveillance

Proposed date for next audit
2023-Nov-01

Stakeholder Announcements

Date of publication	Location
2022-Sep-29	PMI website
2022-Sep-30	Published on facebook
2022-Sep-30	Disclosed in the Politika state-wide newspaper
2022-Sep-28	WSAS and AWS Website

CERTIFICATION REPORT

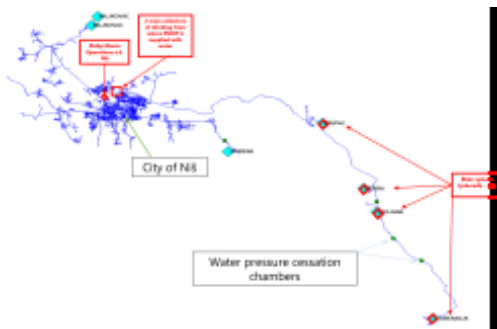
Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

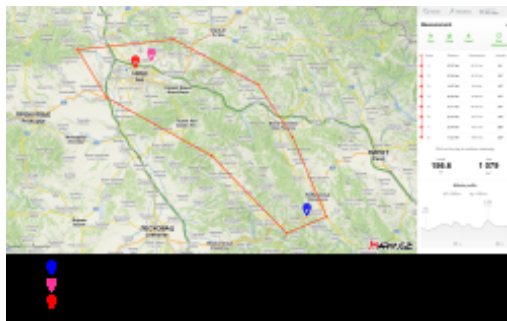
Catchment Information



Nisava River catchment.png



Nis water supply system.png



PMOP catchment area.png

Catchment Information

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

The PMI site is located within the Nisava River Basin in south-eastern Serbia and the water resources of the Nišava basin are surface water and groundwater. The hydrology of Nišava basin involves the interactions between surface flow of the Nišava river and its tributaries and groundwater.

In Eastern Serbia large alluvial aquifers are rare (the Nišava and Timok basins), of importance is the artificially-recharged Mediana water source in the City of Niš, which yields 600 l/s and the large number of karstic springs, 16 of which have a minimum $Q > 100$ l/s.

The Nišava aquifer, is the most important aquifer in the basin, with large volume and high hydraulic conductivity, and is the main source of fresh water for domestic, and irrigated agricultural uses. Groundwater is considered the main source of water supply in the Nišava basin, along with karstic springs used for agricultural, industrial, and municipal purposes. The total number of wells constructed in the basin is not well known.

The Nišava river is part of the Black Sea basin and covers a territory of 3,950 km² (1,237km² in Bulgaria and 2,713 km² in Serbia). It flows through Bulgaria and Serbia and is 218 km long and is the longest tributary of the South Morava. It originates from the Ginska river and Vrbnica, which meet at 640 m.a.s.l. near the village Todena in Bulgaria. The source, below the top of Kom and Stara Planina, is near the border with Serbia, so the flow of Nišava in Bulgaria is only 67 km, and it has no major tributaries. The flow of Nišava's through Serbia is 151 km and flows mainly towards the west. Nišava passes through Dimitrovgrad, Pirot, Bela Palanka, Niška Banja and through Niš. The main tributaries are Temštica (84 km long) and Jerma (72 km long) and many minor tributaries.

The surface area of the river basin is 4,086 km² in total, of which 2,990 km² is located within Serbia. It is the largest tributary of the Južna Morava River, both in length and in discharge (36 m³/s).

Client Description and Site Details

Client/Site Background

PMOP Serbia is located on the right side of the Nišava River in Niš, between two of the major boulevards of the industrial area of the city: Bulevar Nikole Tesle and Bulevar 12, Februara. The site covers an area of nearly 25 hectares, and it is connected to the municipal water infrastructures for the supply of water and discharge of waste water through the public sewage system. The city of Niš is located at the south of the country, and its population is close to 185,000 inhabitants.

The factory was constructed in 1913 under the name Tobacco Industry Nis and in 2003, Philip Morris International acquired the Serbian tobacco factory (DIN) "Fabrika duvana" a.d. The site contains a complex of historical buildings which are designated historical buildings and not used for production purposes. Within the complex, new facilities and auxiliary facilities have been built, which are used for tobacco processing and cigarette production. The production capacity is 125 million cigarettes per day and the site houses Leaf and FG Warehouses and also has a filter making unit.

There are 4 municipal water inlets onsite, which are subject to daily volume checks and monthly water quality checks. Water in primary production is introduced into the tobacco for wetting, all incoming loose leaf is treated with steam, to expand and wet it. The secondary production area is the 'making & packing' area, with limited water use apart from cleaning. Water is treated for use in the boilers (softeners and RO) for steam production and this is sampled and tested onsite for basic parameters (pH, conductivity).. All wastewater generated by the day-to-day activities of the factory is discharged first into the internal and then into the city's public sewerage system. There are three working wastewater meters onsite, which only capture flow rates, as the site is billed on volume only, not quality. Wastewater is monitored quarterly and sent for 3rd party testing for biological and chemical limits. The site has a comprehensive portfolio of water meters installed onsite that are linked to the DSS system for live monitoring. There is an onsite well that was previously used for the cooling towers, but it has not been operational since May 2022, due to the high conductivity of the water. The onsite sources of pollution are managed well and was observed as such during the site tour.

The site has a dedicated project team that undertakes weekly evaluation of progress on their performance against the targets in the WSP as well as AWS documented system preparation. The site also engages the consultancy firm HPC, to prepare the catchment water balance and provide general advice on how to present technical data.

The water supply to the city of Nis, and the Municipal Water Supplier JKP Naissus, is through three inter-dependent water supply systems:

- Mediana: an underground water source fed with previously purified water from the Nišava watercourse, with a capacity of 100-500 l/s.
- Studena: a karst natural spring and supply pipeline with facilities, capacity 220-340 l/s.
- Ljuberađa – Nis: a series of karst natural springs (Krupac, Mokra, Divljana and Ljuberađa) and supply pipeline with facilities, capacity 800-1450 l/s

It supplies water to around 240,000 people and the Niš industrial sector, with a quantity of 37,732,608 m³/year and 103,377 m³/day. The functioning of the system is reliable and stable, and there is a high level of water quality control. The Republic Hydrometeorological Institute of Serbia operates groundwater measuring station at Brzi brod, a suburb of Niš. It is close to 7 km away from PMOP site. This measuring station is a part of wider network of groundwater measuring stations in South-Morava basin.

The sewage system for Nis (Niški Kanalizacioni Sistem - NIKAS), is over 700 km long and untreated sewage flows into the Nišava river in two places, on the left and right banks. It is estimated that about 70-75% of the collected wastewater is discharged on the left bank, further downstream, with the other 20-25% flowing out on the right bank, near the central urban area of Nis.

The City of Nis recognises that surface water quality is a key risk, which is why the WWTP and the required infrastructure is being planned and constructed over the next 4-5 years. There is currently work underway on infrastructure on the Nisava River. As part of this initiative PMOP is scoping out and planning to construct a WWTP on-site for primary treatment of their wastewater.

CERTIFICATION REPORT




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Audit Number: AO-000415

Summary of Shared Water Challenges

- Summary of Shared Water Challenges**
- Degrading surface water quality
 - Projected impact on freshwater biodiversity
 - Baseline water stress
 - Flood occurrence
 - Water depletion, drought and aridity
 - WASH provision

0.1 General Requirements for Single Sites, Multi-Sites and Groups

0.1.1	<i>Eligibility Criteria</i>	
0.1.1.1	<i>The site(s) occupy one catchment OR an exception has been granted.</i>	 Yes
Comment	The site is located within a single water catchment.	
0.1.1.2	<i>The scope of the proposed certification shall be under the control of a single management system.</i>	 Yes
Comment	The PMI site operates under a single management system.	
0.1.1.3	<i>The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.</i>	 Yes
Comment	The scope of certification is for a homogenous primary production system, water management, product range and market structure.	

1 STEP 1: GATHER AND UNDERSTAND

1.1 *Gather information to define the site's physical scope for water stewardship purposes, including: its operational boundaries; the water sources from which the site draws; the locations to which the site returns its discharges; and the catchment(s) that the site affect(s) and upon which it is reliant.*

1.1.1 *The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:*

- Site boundaries;
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization;
- Any water sources providing water to the site that are owned or managed by the site or its parent organization;
- Water service provider (if applicable) and its ultimate water source;
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;
- Catchment(s) that the site affect(s) and is reliant upon for water.



Yes

Comment

The site is located within the industrial area of Nis, with only industrial businesses and a military facility surrounding it. The site has prepared a powerpoint presentation containing all the site maps, and contextualising the location of the factory in Serbia.

The initial cigarette factory was the 'Royal Monopoly' and the historical buildings have been reconstructed after the war.

Building Details spreadsheet

Ownership certificate from the equivalent of the Land Registry.

Presentation on the water-related facilities in the site boundaries, which includes a host of maps including sewage etc Map of potential sources of pollution, separators layout, water meter layout map (26 meters). Discharge points on-site; there are 5 and the audit team had view of location showing the meters for 1,2 &3. (Upload picture).

Water and sewage plan pdf the rainwater reservoir is located in between buildings 24a & 24b the main storage warehouses. reducing the probability of on-site flooding. There is a local water challenge of spring and summer flooding from large volumes of rainfall.

Additional documents uploaded against this indicator: template for a maintenance work order, using ISS software. Separator efficiency test report, issued by Faculty of mechanical Engineering, they do a full visual inspection and integrity tests. This documentation is submitted as part of water permitting activities, the permit is now valid for 10 years. Maintenance records for operational areas, including water supply. SLA 7 is for water supply. This includes maintenance of the condition of the onsite well, even though it is no longer in use.

Description of the site's water resources, the powerpoint presentation contains pictures of the rainwater pool before it was refurbished. There is a pump and water point above ground now and trucks can fill up with water for irrigation and for cooling down the heavy oil storage tanks if temp go above 35 degrees celcius.

water permit issued by Serbia Water in 2017 and this lasts 10 years. that water and sewage infrastructure has to be maintained and monitored, have to test the wastewater, have to keep separators maintained, monitor quarterly the quality of wastewater.





water service provider presentation: the water sources where the provider obtains its water sources from. two main reservoirs of drinking water: Vinik 1 & 2.

Discharge points presentation: sewage system of city of Nis explanation (NIKAS). The ultimate receiving water of all non-treated wastewater is Nisava, in two places (left and right bank). It is safe to say that no one goes swimming in the river. Only 2-3 cities in Serbia have a WWTP, most wastewater is discharged untreated into the country's waterways. The city of Nis has started construction for the new WWTP plant and the timescale for the project is 5 years.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

1.2	<i>Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.</i>	
1.2.1	<p><i>Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:</i></p> <ul style="list-style-type: none"> - <i>Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people;</i> - <i>Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies;</i> - <i>Provide evidence of stakeholder consultation on water-related interests and challenges;</i> - <i>Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups;</i> - <i>Identify the degree of stakeholder engagement based on their level of interest and influence.</i> 	 Yes
Comment	<p>The site has mapped water related stakeholders, starting with strategic and regulatory stakeholders - in terms of authorities responsible for setting the national regulatory frameworks, as well as the regional/local authorities. Public sector organisations and water related authorities, who would issue any permits.</p> <p>Academic institutions have been identified both in terms of geographical location and subject relevance. Two NGOs (who are involved in water related projects, funding contribution by PMI). Strong interaction with the local business community, within the industrial estate and KLER and chamber of commerce.</p> <p>Level of interest and influence has been identified</p> <p>Systematic approach to identifying and mapping relevant stakeholders: regulatory (national/regional/local), public sector and utilities, academia, business community. There aren't any organised local community associations.</p>	
1.2.2	<i>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.</i>	 Yes
Comment	Stakeholder influence and engagement matrix. Current influence of Nis Factory stakeholders has been recorded in the overall spreadsheet (column L) and potential degree in Column O.	
1.3	<i>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.</i>	
1.3.1	<i>Existing water-related incident response plans shall be identified.</i>	 Yes
Comment	<p>The site has a comprehensive suite of emergency response plans in place, but at the time of the gap analysis they were missing any water-related incidents and risks. They have appointed a consultant to review and revise their emergency incident response plan and supplied a Purchase Order to that effect (Ref: 5700412810), this will be reviewed at the next surveillance audit. The site's water-related incident response plan will be contained within the 'Emergency preparedness' (EH-11) plan. Some water related risks are covered under 'spillage of oils and chemicals' and 'natural disasters', this is a general incident response plan but is applicable to water related incidents.</p> <p>The site undertook an oil spillage emergency test in March 2022 and WSAS had view of the movie that was put together of the training exercise.</p>	
1.3.2	<i>Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped</i>	 in progress


Audit Number: AO-000415

Comment The site has developed a Sankey Diagram of the site's water balance and it displays the 2021 data, identifying inflows, losses, storage and outflows. The water calculation for 2021 is balanced, but the Sankey diagram does not include the onsite well water, which still contributed 15,801 m3 to the cooling towers. The audit team noted that it would be beneficial to add a footnote that summarises the volume of water stored onsite for the fire sprinkler system, this was subsequently added to the amended Sankey's diagram and equates to 875m3.

The diagram of the site's water balance is useful, particularly to map how water is distributed around the site's buildings. However, it can't be compared with the Sankey's diagram of the water balance, as there are a number of issues with it:

- The data used has not been allocated a time frame i.e. is it from 2021?
- Well water is not included in the Sankey Diagram but it is in the site diagram,
- It does not record evaporation or volume going to sewage.
- It does not record water volume going into product.
- It does not record the sprinkler storage volume.

Finding No: TNR-003111

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.* in progress 

Comment The site has supplied the annual variance in water usage for 2021, which demonstrates a summer peak for the chillers and cooling towers and winter spike for boiler use. Production levels can vary, particularly due to the number of products and end-markets, so there isn't a particularly annual production pattern that applies year on year. The annual variance in water usage therefore fluctuates depending on the production levels. There is no onsite storage apart from the fire system and the onsite well was closed in May 2022.


The site's water balance has been quantified, but the Sankey diagram does not account for the contribution from the on-site well, which was still operational in 2021.

A number of graphs have been supplied that provide the following information:

- Site water consumption, including monthly variations for 2021.
- Water consumption levels compared between 2019, 2020, and 2021
- Water ratio chart for 2019, 2020 and 2021 in m3/million cigarettes.

Site's KPIs for 2019, 2020 and 2021 was also supplied for reference.

Finding No: TNR-003112

1.3.4 *Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.* Yes 

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

Comment The 'water testing details' presentation contains a summary of all the site's water quality testing activities. The drinking water in the restaurant, boiler house and primary production are tested monthly, by the Institute for Public Health in Nis and a contract is in place for this service. The waste water at the site is tested quarterly by Anahem Laboratory, examples of them taking samples and the equipment they use is included in the presentation.

Internal water quality measurements and monitoring is conducted by ISS Services. Boiler ad cooling tower water quality measurement is provided daily. pH, O2 and conductivity measurements are done by Atalian Services Technician.

The site does not have access to any water quality data for the receiving water body and the river receives untreated water only, which is a significant water risk. It is noted that both the City of Nis as well as the PMI site are working on addressing this water challenge. The lack of waste water treatment plants is a critical water risk across Serbia, which is slowly being addressed in the post-war period. There is some data available for the receiving water, please reference the report from the Environmental Protection Agency on the 'quality of surface water for the Nisava River' for the period 2016-2020. There is one sampling point for Nis. The 2020 report,(page 240) contains the results from Nis, including seasonal data. The 2021 report has not been published yet and will be reviewed at the surveillance audit.

The site supplied numerous documents to evidence this indicator. The 'Water IN Report Evidence 2022' spreadsheet, records all water wuality test reports that have been conducted so far in 2022. The 'waste water from production processes' presentation, gives a useful visual overview of the production areas where waste water is generated. There is also a representative sample of test reports that have been generated by the site.

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

Comment The site supplied 'Records of Chemical' spreadsheet, listing all chemicals being stored onsite, the spreadsheet contains several tabs, to cover production and indirect use (outside production).This document is available on the company wide sharepoint so everyone has access to it. The audit team did a physical tour of the site, covering all the potential sources of pollution areas, and observed several chemical storage areas under good management and with spill prevention strategies in place. The 'Potential sources of pollution' presentation has mapped them on the site and includes a spill prevention map.

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

Comment The site has identified and mapped three onsite IWRAs: water well, rainwater pool and the historical site, as the latter has great historical and cultural value and could be under threat of flooding. The historical site is under protection of the Institute of Cultural Monuments of Serbia. The status of the water-related onsite IWRAs are supported by test reports. The Well water has exceptionally high conductivity 1400, municipality water has 400 conductivity, and after Reverse Osmosis it's about 5-6. As of May 2022, the well is no longer in use.

1.3.7 *Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.* ✔
Yes





Comment The site has completed the 'True Cost of Water Tool' and itemised any water-related cost incurred by the site, please reference the 'annual water related costs' spreadsheet for specific cost categories. The annual water related costs are now 22.2 euros per m3.

In terms of value creation, there is no WWTP onsite and rainwater was used for irrigation in 2021, although the site gets good rainfall for the green areas. The estimated rainwater use is 100m3. The annual tax for consuming and discharging water is in accordance with the law.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

1.3.8	<i>Levels of access and adequacy of WASH at the site shall be identified.</i>	 Yes
Comment	The site has prepared an 'Information regarding WASH facilities' presentation, which summarises a comprehensive set of WASH information for the site. It contains a site layout with mapped toilets and showers, areas for food and drinks consumption. There are 9 kitchens onsite and 54 water appliances installed. The site has mapped their WASH facilities against national standards and demonstrated that they meet them. A Covid 19 prevention strategy was fully in place and the site managed to continue production during lockdown, with three shifts in place and some office functions undertaken remotely. The site also supplied the national WASH standards for reference and an email communication with a consultant regarding meeting WASH standards.	
1.4	<i>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.</i>	
1.4.1	<i>The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.</i>	 Yes
Comment	<p>The site has developed an 'Indirect water use of primary inputs (DIM + LEAF)_PMOP Nis' spreadsheet, which contains a full breakdown of suppliers, where they are located and whether they are locate inside or outside the water catchment. This includes: cigarette and filter components, packaging components. They have also recorded what the annual quantity of the material is supplied to the site (PMOP). Examples of communications with the PMOP customers team are attached, as they were responsible for managing the supply chain enquiry.</p> <p>The audit team had view of a 'AWS LEAF Presentation 2022' that covers all PMI global sites and looks at how PMI globally will reduce the embedded water use of operations, including a breakdown of global water stewardship projects. This includes risk assessment tools and indicators and the WRI volumetric water benefit accounting tool.</p>	
1.4.2	<i>The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.</i>	 Yes
Comment	<p>The 'Outsourced Services Water Usage' spreadsheet has identified two outsourced services, which are located in the catchment:</p> <ul style="list-style-type: none"> - Uniform washing service uses 24m3 per annum, off-site and within the catchment. 2000 kg of washing per year. - car fleet washing, their annual water use is 18m3. The site thought the volume of water used could not match up to 157 cars being washed a month. The activity uses 1.5 m3 per month, 18 m3 annually. The washing service uses highly water efficient pressure washers and reuse water in operations. <p>Attached is evidence emails of the site obtaining information to support the spreadsheet, including a request for the Technical Specifications for the pressure washer.</p>	
1.5	<i>Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH</i>	
1.5.1	<i>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.</i>	 Yes

Audit Number: AO-000415

Comment The site has prepared a 'Catchment water governance' presentation, which lists the main authorities responsible for water related initiatives. It also outlines the monitoring programs and permanent monitoring stations for drinking water alongside a map of sampling stations for the water supply system in Nis. The WWTP project that is under development will put a requirement on all industries in Nis to discharge wastewater within certain quality parameters, this will likely lead to the site having to construct an onsite WWTP to do some primary treatment before discharge, as fees will be levied on the quality.

PMOP are also engaged with a stormwater runoff project, which aims to examine four types of terrain and their permeability and 1 underground retention scenario. The faculty are currently constructing the test terrain and final activities are scheduled to take place by the 30th November. The site has conducted trash challenges and reforestation campaigns with Banker Radio (Nis radio station) cleaning the Nisava riverbanks and supporting reforestation along the river to reduce flooding risk. The site has supplied a number of key policy documents for reference:

- Water Governance Plan for Serbia (2021-2027)
- National water governance strategy for Serbia until 2034
- Environmental Protection Plan of Nis (2017-2027) the WWTP is listed in there and PMI is seen as the 15th largest producer of industrial wastewater in terms of volume, there is no data for quality.

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



Yes

Comment The site has collated relevant information in a 'Water-related legal and regulatory requirements applicable to the catchment territory' presentation, this is a breakdown of the areas covered by the site:

- National Law - The Human right to water and sanitation.
- National Strategies
- National Law
- National and Local By-laws

There is a draft National Law on water for human use, which has not been adopted yet. The site has identified a number of adjacent water-related laws and regulations, please refer to the powerpoint presentation for further details. There is a framework in place for testing the quality of wastewater, but they are not very specific in terms of requirements and limits. The site uses an external test lab quarterly, to conduct test on samples. There is also a 'Register of regulations' which records some of the water laws.

WSAS notes that the legal framework for environmental protection is strong, but it has not translated into environmental protection initiatives, in particular the establishment of a national WWTP network. The site has collated test data from a year, and informed WSAS that the quarterly tests have been taking place for the last ten years, so there is some data to analyse, in terms of the site's wastewater quality. WSAS had view of the annual spreadsheet, the fluctuations of the values are significant, and it was impossible to ascertain what a 'normal wastewater discharge' looks like.

1.5.3 *The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.*



Yes

Audit Number: AO-000415

Comment The site appointed HPC Italia to work on catchment technical issues, such as the catchment water balance. This resulted in the 'Catchment water balance Analysis for AWS' (October 2022), with the water balance calculation being based on the following calculations, related to the Nišava basin:

- The area basin is 4086 km²
- An average annual rainfall of 581 mm amounting to 2374 MIL of m³
- Average annual runoff volume of 1135 MIL of m³
- Average ET of 984 MIL of m³ per year
- Average abstraction of 41.5 MIL of m³ per year
- Average percolation into aquifer of 18 MIL of m³ per year
- Average groundwater recharge flow of 107 MIL of m³ per year
- Runoff basin modul is calculated to 8.81 l/s/km²
- Runoff layer is calculated to 340 mm
- Runoff coefficient is calculated to 0.59

The overall conclusion is that the basin's water balance is able to feed all average annual water demands and flows to aquifers for average annual rainfalls. The calculation conducted with estimate of 524 mm of average annual precipitation shows that this is the bottom line of total annual rainfalls for avoiding water scarcity in the basin (if demands remain at average level). Annual average rainfalls at 450 mm would lead to water scarcity and certain water balance shortages.

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

Comment The 'Status of Surface water 2017-2019 EPA' presentation contains extracted data for the Nis sampling point on the Nisava River. It contains chemical and biological parameters and it should be noted that the EPA sampling point for Nis is upstream from the waste water discharge points, so the biological results are surprisingly good. The Environmental Protection Agency Reports for Serbia are available for 2016-2020.

JKP Naissus monitor the quality of the Nišava River and conduct water quality testing monthly, monitoring the quality of watercourses of the River Nišava before flowing into the River South Morava and the impact of wastewater. example test results are attached. The EPA spreadsheet contains monthly data from 2016 to 2020, giving an indication of annual and seasonal variances across chemical and biological parameters.

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.* ➔
in progress




Comment The site has developed an 'IWRA in the catchment PMOP' the first six ebtreis are water springs in the catchment. A total of 15 IWRA's have been identified and the their status have been defines

The list is comprehensive, but it would benefit from additional detail and if possible (as in line with the Guidance) for the site to visit the sites and obtain benchmark photographs.

Finding No: TNR-001787

1.5.6 *Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.* ✔
Yes

Audit Number: AO-000415

Comment	<p>The site has prepared an indicator presentation that outlines the planned infrastructure projects in the catchment. The WWTP for Nis is the major planned water-related infrastructure project, which will have a significant impact on the area. The WWTP location will also contain a Biogas plant, producing 730K m3 for heat production. PMOP will also be constructing a WWTP onsite to undertake primary treatment and this is recorded on the plans. Information on several projects to construct an appropriate sewerage network has been included in the presentation and provides a good overview of existing and planned infrastructure projects.</p> <p>Reservoir Vinik and the main piping collector network, is old but in OK condition and under continuous refurbishment. The site has been in contact with NISSUS to obtain information regarding the condition of the reservoir and the connecting pipelines. The area has been mapped against a range of risks, such as surface water quality flooding and baseline water stress.</p>	
1.5.7	<i>The adequacy of available WASH services within the catchment shall be identified.</i>	 Yes
Comment	<p>The site has supplied a general overview of WASH in Serbia and the Nis area. The metropolitan city of Nis, is part of the Region of Southern and Eastern Serbia (Region Južne i Istočne Srbije) and according to the Statistical Office of the Republic of Serbia from 2020, which refers to 2019 data:</p> <ul style="list-style-type: none"> - only 69.7% of households in the region are connected to public water supply networks (lowest level nationwide) - only 50.2% of households in the region are connected to the sewerage network (lowest level nationwide) - only 7.1% of waste water is delivered to the public sewage system 	
1.6	<i>Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.</i>	
1.6.1	<i>Shared water challenges shall be identified and prioritized from the information gathered.</i>	 Yes
Comment	<p>The site has prioritised the shared water challenges in decreasing order, in consultation with the consultancy firm HPC. For each water challenge the site has identified potential opportunities, potential actions, existing initiatives and references.</p> <ul style="list-style-type: none"> - Degrading surface water quality - Projected impact on freshwater biodiversity - Baseline water stress - Flood occurrence - Water depletion, drought and aridity - WASH provision <p>The site has not identified the shared water challenges in consultation with stakeholders, which is a requirement of the indicator. But they have subsequently interacted with stakeholders to discuss water challenges, such as the meetings with JKP Naissus and the Chamber of Commerce. There were key water challenges questions in the questionnaire that was sent out to all internal and external stakeholders, so the site has consulted widely on them. WSAS will monitor the shared water challenges going forward to assess whether they will change on the back of the questionnaire feedback process. The current challenges are adequate for an initial certification audit.</p>	
1.6.2	<i>Initiatives to address shared water challenges shall be identified.</i>	 Yes
Comment	This is covered in the spreadsheet in 1.6.1	

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

- 1.7** *Understand the site’s water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6.*
- 1.7.1** *Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.* ✔
Yes

Comment: This piece of work was undertaken with HPC who undertook a number of water risk assessments. The risks analysed were aridity, water depletion, drought frequency, surface water quality (very high), estimated flood occurrence (moderate risk), baseline water stress (high risk). This is counter to the sites own data and local data, which reflects an important point on the inflexibility of general tools such as the Water Risk Filter or Aqueduct Tool for high-resolution, country-based global data sets. The final slide in the 'water risks for the site PMOP Nis' compares the global and local outcomes to the a set of water risks, and only two of the seven risks have arrived at the same risk level.

The site has also supplied a 'Risk Analysis - PMOP Nis' presentation, which includes a scenario analysis for water risks. Teh underlying Water Risk Filter portfolio files were supplied by the site.
- 1.7.2** *Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.* ✔
Yes

Comment: Please refer to the spreadsheet n 1.6.1.
- 1.8** *Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.*
- 1.8.1** *Relevant catchment best practice for water governance shall be identified.* ✔
Yes

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

Comment The site has developed a 'Best Practices' spreadsheet, which lists a number of relevant examples of best practice across all five AWS outcomes. The actions described are quite general and in discussion with the site, it was agreed that they would add a column to provide evidence of a specific examples, rather than 'good practice actions'. Some examples of best practice actions for water governance are:

- Public disclosure of relevant water-related data, such as water risk assessments, catchment water balance and quality status, in order to increase awareness, drive transparency and synergic projects to mitigate and address common challenges
- Disclosure of a comprehensive, well-implemented and reviewed responsive and resilient water stewardship plan with relevant industrial and institutional stakeholders with the scope to gather feedback for continuous change
- Engagement with peer organizations and relevant stakeholders (i.e., public sector such as Ministry of Environment, Water and Agriculture, JKP Naissus water service provider) to promote water stewardship and open a catchment-base discussion and potential partnership on shared water-related risks and challenges
- Active engagement, collaboration and best practice sharing with stakeholders from the industrial sector in order to encourage the implementation of technical actions related to the reduction of groundwater withdrawals
- Promotion of joint multi-stakeholder technical tables, workshops and/or webinars in order to lead the discussion on water issues and drive an integrated response against territory risks

In terms of specific actions, the site recorded:

- IFMS department installed 17 new watermeters in accordance to improve monitoring system. Installation of new watermeters started in 2021 and completed 2022.
- In accordance with run to target methodology IFMS department daily monitor and control both water in as well as specific water consumption. In accordance with daily results we have possibility to check water consumption in subprocesses due to fact that we installed internal watermeters on critical points.
- PMOP was in close contact with JKP Naissus which is local water supplier and KLER (Office for Local Economic Development) and gathered information on good water governance, challenges, opportunities, etc.

1.8.2 *Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.*



Yes

Audit Number: AO-000415

Comment Examples of general 'best practice actions' for water balance activities, were identified as:

- Carrying on studies, tracing water flow charts and mass balances for water in order to acknowledgement its water balance situation and impact on the catchment
- Implementation of innovative technologies, settings, recycling scenarios, etc., in order to increase water efficiency and waste water reuse, and consequently reduce water consumption
- Reduction and/or optimization of water use on-site in order to decrease groundwater removal from aquifer bodies and consequently increased water availability for other community users and sensitive environments
- Engagement of relevant institutional stakeholder in order to promote activities and/or technological improvements aimed at restoring the balance of the catchment
- Periodically executing maintenance and monitoring activities of water-related infrastructures to ensure optimum well-functioning and status

Specifics best practice activities undertaken by the site, where identified as:

- On PMOP Nis site is constructed retention tank under bulding 24b which collects rainwater from roof of building 24a. Collected water is used for irrigation on-site and also for cooling heavy oil reservoirs. Estimated amount of water used for these purposes is 100m3
- Engineering team recognized opportunity for reusing wastewater from Reverse Osmosis and Cooling tower for cleaning Scrubbers in primary. By installing equipment of RO water consumption in primary is reduced for 50% in first month.
- PMOP Nis participate event with Chamber of Commerce and shared challenges, opportunities,

1.8.3 *Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.*



Yes

Comment Examples of general 'best practice actions' for water quality, were:

- Correct storage and containment of substances that may impact the aquatic environment (i.e. oils, emulsions, binders, etc.) and management plants to prevent leakages
- Planning and conducting periodic monitoring and maintenance activities on waste and/or waste water storage structures
- Investigating on the potential installation of water-related infrastructures, such as Water Treatment Plants (WTP) and Waste Water Treatment Plants (WWTP) , oil water separators, etc. directly on-site
- Periodically replace, maintain and/or monitor water-related structures, in order to avoid pipe ruptures, spills and/or contamination events
- Executing more stringent monitoring campaigns on additional water quality parameters, in order to provide a more detailed quality screening

Specific examples of activities undertaken by the site were:

- City of Nis recognized surface water quality as main risk in past years and that is the reason why Future Wastewater Treatment Plant project is planned to be build in next 4 + 1 year. Currently are works on infrastructure ongoing on left and right side of Nisava River. As part of this initiative PMOP will consider constructing and building WWTP on-site.
- PMOP is testing quartaly wastewater on 5 sampling points in order to fulfill legal requirements and improve surface water quality.
- PMOP has 4 separators on-site installed on critical points. Sludge that is collected in separators is disposed to operator and treated as waste.

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



Yes

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

Comment Examples of general 'best practice actions' for the maintenance of IWRAs, were:

- Discussion on reforestation activities with relevant stakeholders in the territory in order to mitigate water-related problematics and reduce soil evaporation
- = Promotion (socially and/or financially) of reforestation and green urbanization projects with the aim of limit anthropization, biodiversity loss, etc.
- Participate and/or finance global campaigns related directly or indirectly to environmental safeguard or restoration
- Open discussion with institutional bodies to understand corrective actions and best practice sharing for the safeguard of IWRAs

Specific examples of best practice maintenance activities supplied by the site are:

- PMOP Nis recognized IWRAs in catchment and also on site. As actions taken in order to improve status of IWRAs in catchment we can mention actions of REFORESTATION and CLEANING EVENTS. Last years PMOP cooperates with Banker Radio and participates in awareness raising events like: Trash Challenge on Bank of Nisava River; Action of Reforestation - Let Nis Breathe.
- PMOP Nis took an action of identification and mapping on-site IWRAs by installing notification boards

1.8.5 *Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.*



Yes

Comment Examples of general 'best practice actions' for the provision of WASH services are:

- Engagement of relevant institutional stakeholder to assess and discuss equal access to potable water, adequate cleaning supplies and sanitary conditions in the local territory
- Promotion of awareness activities with other local stakeholders to improve the rights of local people regarding water and sanitation
- Promote actions and/or projects aimed to ensuring access to WASH facilities amongst local most vulnerable communities
- Provision of training and/or awareness activities for employees and their families on good hygiene practices and the importance of access to clean water

Some specific examples of activities undertaken by the site are:

- Example of engagement on improving of WASH is cooperation with drinking water supplier JKP "Naissus", KLER and other private companies in order to disclose best practices, challenges, concerns and opportunities. During meeting with relevant stakeholders on meeting in Chamber of Commerce we gathered information on percentage of sanitation and coverage of the territory with drinking water.
- PMOP organized raising awareness event in production hall on various topics - WASH, WWTP

2 STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan	
2.1	<p><i>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.</i></p>
2.1.1	<p><i>A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:</i></p> <ul style="list-style-type: none"> - <i>That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes</i> - <i>That the site implementation will be aligned to and in support of existing catchment sustainability plans</i> - <i>That the site's stakeholders will be engaged in an open and transparent way</i> - <i>That the site will allocate resources to implement the Standard.</i>
Comment	<p>The site has prepared an AWS Commitment statement and it was signed by Igor Kroshkio (Manufacturing Director for SE Europe) on the 05.07.2022. The statement contains all the requirements of the indicator and the site also supplied evidence of how this has been communicated both internally and externally (please see attached documents), including a presentation to the Senior Leadership Team and Internal awareness raising event, that about 100 employees took part in.</p>
2.2	<p><i>Develop and document a process to achieve and maintain legal and regulatory compliance.</i></p>
2.2.1	<p><i>The system to maintain compliance obligations for water and wastewater management shall be identified, including:</i></p> <ul style="list-style-type: none"> - <i>Identification of responsible persons/positions within facility organizational structure</i> - <i>Process for submissions to regulatory agencies.</i>
Comment	<p>The 'Compliance Evaluation Template - PMI Serbia' spreadsheet lists all regulatory and legal obligations, this is a summary tracking spreadsheet and Jasmina is responsible for the site's compliance obligations. The site uses 'Paragraf Lex' to register any laws or regulations that are applicable to the site, and they are informed of there are any changes to requirements. and is utilised to track all obligations.</p> <p>The site only has an obligation towards the Environmental Protection Agency in terms of reporting against water related compliance obligations. They operate an online reporting platform and Jasmina has credentials to access the site and upload all documents annually before March, for the previous year. The EPA can make unannounced inspections, but overall, the site has very minimal reporting obligations on water-related issues.</p>
2.3	<p><i>Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.</i></p>
2.3.1	<p><i>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.</i></p>
Comment	<p>The site has developed a Water Stewardship Strategy that defines the overarching mission and vision for water stewardship for the site.</p>



Yes



Yes




Yes

CERTIFICATION REPORT


Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

- 2.3.2** *A water stewardship plan shall be identified, including for each target:*
- How it will be measured and monitored
 - Actions to achieve and maintain (or exceed) it
 - Planned timeframes to achieve it
 - Financial budgets allocated for actions
 - Positions of persons responsible for actions and achieving targets
 - Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.
- 
Yes

Comment The site has split their WSP into two types of actions: Social & Community and Technical. Each type of action has different ways of describing and measuring the targets set in the plan. Each target includes monitoring (unit of measure) and a measurable target, with a budget and a responsible person for the action. It also contains a timeline and lists the AWS Outcome the target contributes to.

- 2.4** *Demonstrate the site's responsiveness and resilience to respond to water risks*

- 2.4.1** *A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.*
- 
Yes

Comment The 'Actions and Plans to mitigate water risks' presentation' outlines the activities that the site engages with to mitigate or adapt to identified water risks with their public sector agencies. Examples of this are:

- Meeting with water service provider JKP Naissus,
- Meeting organised by the Chamber of Commerce to share water-related practices and discuss water challenges in the water catchment.
- The planned WWTP and the implications it has on developing a pre-treatment plan on the PMI site.
- The Biogas production site at the WWTP and construction of the WWTP infrastructure around Nis.
- Project with NGO Green Build and the Faculty of Civil Engineering.

The Action Plan for reaching targets for wastewater into Nisjava at the level of communal water, is an internal document and some of the targets within it has been listed in the WSP, but additional targets can be included in future iterations of the WSP. Table 17 in the action plan lists all the actions. This document is a key reference point for the WSP, it is currently in draft format and the individual actions have therefore not yet been included in the WSP .

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

3 STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts

3.1 *Implement plan to participate positively in catchment governance.*

3.1.1 *Evidence that the site has supported good catchment governance shall be identified.*



Yes

Comment The site has undertaken a number of actions that support good catchment governance, which are summarised in the attached presentation. A meeting was organised by the Chamber of Commerce on Water Governance (20.10.22) where the site did a presentation on the AWS standard and attendees shared water related practices, including a site with an onsite WWTP. Further details regarding the meeting is attached.

The site is undertaking a local community contribution project with NGO Green Build with the Faculty of civil engineering. The faculty has developed a test field, to test the permeability of different materials and the research outcomes will be shared publicly. Flooding has been an issue in Nis, as well as treatment of any waste water and a new WWTP is being constructed to address this issue.

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.*



in progress

Comment The site has indicated that this indicator does not apply to them, however, has provided no information on the process of how this conclusion is reached. No indicator in the Standard does not apply. The site is required to address this indicator.

Guidance on how to approach: This indicator refers to water rights not already covered by legal and regulatory mechanisms as captured in 3.2.2. Information on such rights may come from local governance groups or other stakeholders. Recognizing that some rights are not in such requirements, but are still relevant, they are captured in this indicator regarding governance. One possible source of this information could be local indigenous groups or organizations.

Additional guidance on the respect of human rights is given in the UN Guidance Principles on Business and Human Rights (2011), however it is important to note that the scope of the AWS Standard is focused on water-related rights.

Where stakeholders have rights to the water resource, such as some local communities and indigenous peoples with traditional rights, their informed consent should be given in order to use the resource. Where these rights are not formally recognized by a government regulator, there remains a duty to identify and respect them where they exist. Engaging with such communities requires a long-term commitment to achieve meaningful dialogue and build trust between parties.

Finding No: TNR-003125

3.2 *Implement system to comply with water-related legal and regulatory requirements and respect water rights.*

3.2.1 *A process to verify full legal and regulatory compliance shall be implemented.*



Yes


CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

Comment The site's Water Permit is valid until 2027 and has been in operation for 10 years. The site had to supply evidence that they are undertaking a range a maintenance activities in order to demonstrate that they are compliant. The site will receive an Inspection Order from the Ministry of Environmental Protection. They can request it at any time, but the site requested it in 2016 to support the extension of their water permit in 2017. The site also supplied a copy of the Water Inspector Report, which stated they were compliant.

The site has been inspected by the Local Environmental Protection Agency. The only compliance obligation that the site has is an annual environmental reporting, covering all environmental obligations, which Jasmina undertakes on the online platform. The audit team had view of the report that the site receives confirming that they are compliant.


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.*  in progress

Comment The site has indicated that this indicator does not apply to them, however, has provided no information on the process of how this conclusion is reached. No indicator in the Standard does not apply. The site is required to address this indicator.

The guidance for 3.1.2 applies here also.


Finding No: TNR-003126

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


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

Comment The site has implemented a number of projects to improve the overall water balance, that also form part of the WSP. These are summarised in the attached presentation and consist of:

- Heat Recovery FTD (Flashing Tower Drier) where steam is introduced to the tobacco, to fluff it and make it wet. Heat from FTD was discharged into the air and PMOP recognised the opportunity for heat recovery. This would reduce the demand for steam and improve the site water balance.
- Use wastewater from RO and Cooling towers blow down for scrubbers in the primary production area.
- Installation of new water meters: installation of internal water meters in order to monitor and control water consumption in sub processes. The data feeds into the DSS process, allowing the site to improve the live monitoring of water use.
- Increased cooling tower conductivity to 3200us, in order to reduce refill cycles.
- Use of rainwater for irrigation.
- Water softener flushing system upgrade, in order to reduce water consumption.
- Vacuum pump heat recovery.

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

Comment The indicator is only marginally relevant to the site, particularly as water scarcity is not a shared water challenge. Please reference evidence presentation for indicator 1.3.7 that tracks the overall reduction in site water use over three years. The site has supplied varied evidence to demonstrate the ongoing reduction in site water use.

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

Comment This indicator does not apply to the site and they have issued a formal statement to that effect.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

3.4 *Implement plan to achieve site water quality targets*

3.4.1 *Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.* ✔
Yes

Comment

The 'Evidence of good water quality implementation' presentation, sets out the actions the site has undertaken to progress on water quality issues. The site has supplied the front page of test reports which were done by Anthem Laboratories in each quarter in 2020. The results from Q2 show that the site was not compliant on one sampling point: pH was low and biological and chemical oxygen consumption was higher than limit. The site believes it was a faulty separator, as all test results have been compliant since then.

The site undertakes annual Trash Challenges, as surface water quality is an issue due to the lack of waste water treatment in Nis. This is therefore seen as an important awareness raising awareness of water quality and pictures were supplied for the 2022 challenge. The Bio Circle machine is a closed system self purification system, (circular) it can check machine parts that contain oil and glue, so that this is not introduced to wastewater during a more traditional cleaning operation. There is one such unit installed at the site and it is recommended that the site records how it is used and what is displaced in terms of polluted water.

The site has replaced conventional cleaning agents with a biodegradable agent in the factory restaurant and for industrial cleaning. New products have been identified and ISS have been requested to attend the site, to see how well the new products clean and what quantities are required in the various cleaning processes. The site will also introduce Legionella testing for the HVAC system in 2023.

The site will install additional manholes for sampling points for the future primary WWTP, in order to improve quality monitoring for waste water on site. The site is in the process of installing spill containment pallets at locations that are identified as high risk areas and potential sources of pollution. 10 pallets will be installed by June 2023.

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

Comment

See 3.4.1

3.5 *Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.*

3.5.1 *Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.* ✔
Yes

Comment

The site has created display boards for the onsite IWRAs to map their status. The Mediana area in Nis contains manmade wells that are used as a natural filter for water from river, it works as a flood plain and is seen as a water factory and part of the water supply system for Nis and the site undertook a trash challenge for the left bank of the Nisjava river. One of the rivers that feeds into Nisjava in Nis, Gabrovacka River, is listed as an action on the WSP and the site did a reforestation activity and planted about 50 trees. The IWRAs are listed in catchment spreadsheet under 1.5.5. and the site are actively undertaking environmental improvement actions on their onsite and catchment IWRAs.





3.6 *Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.*

3.6.1 *Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.* ✔
Yes

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)






Audit Number: AO-000415

Comment	The site has collated relevant evidence that it has adequate provision of WASH facilities, which was verified by the audit team during the audit. The site has supplied evidence that they provide WASH facilities onsite and per shift, in accordance with the national standard. Evidence of Covid 19 prevention measures was evident. The also has plans for the coming year, such as: refurbish the kitchen in building 23, installing a professional dishwashing machine. Case study is planned for 2023 (Q1 and Q2) with academia and the Green Build NGO, to explore potential projects to improve WASH provisions.	
3.6.2	<i>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.</i>	 Yes
Comment	This indicator does not apply to the site, but stakeholders were asked the question on whether the site is impinging on their human rights. This is in question 11 in the questionnaire, please reference evidence is in 4.4.1/3.8.2.	
3.7	<i>Implement plan to maintain or improve indirect water use within the catchment:</i>	
3.7.1	<i>Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.</i>	 Obs.
Comment	Please refer back to 1.4.1 and the information gathered for that indicator. None of the raw material suppliers are located within the water catchment and a target has therefore not been set in the WSP.	
3.7.2	<i>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.</i>	 Yes
Comment	The site has identified two outsourced services and the uniform washing service Slavica Etilen is located in Nis, within the catchment. There is evidence that the site has been interacting with the service provider to obtain technical information and specifications of water use equipment and their water consumption. There is a target in the WSP to undertake a 'Detailed investigation (via data request and engagement) of raw material (DIM) suppliers and outsourced service provider's: water consumption, quality compliance, exposure to water-related risks and implementation of sustainable water practices'. The site has started this process and in future years WSAS will expect to see more detailed and comprehensive evidence of engagement.	
3.8	<i>Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.</i>	
3.8.1	<i>Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.</i>	 Yes
Comment	The audit team had view of two communication folders: stakeholder communication and disclosed report & questionnaire. The site has engaged with a good selection of external stakeholders, that received both the report and the AWS questionnaire. The process was managed by Jelena Stevanivic (External Affairs) who was the lead in interacting with external stakeholders. Jasmina was responsible for internal stakeholders, in particular the contracted organisation, which are listed in the stakeholder list e.g. Adeco, Atalian Servics. Prica Catering, Milsped. The site shared a number of email communications with relevant stakeholders, disclosing the questionnaire and the annual water stewardship report.	
3.9	<i>Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.</i>	

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

3.9.1	<i>Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.</i>	 Yes
Comment	As outlined in indicator 3.1.1, the site has undertaken a number of actions that support good catchment governance. The site is undertaking a local community contribution project with NGO Green Build with the Faculty of civil engineering. The faculty has developed a test field, to test the permeability of different materials and the research outcomes will be shared publicly. Flooding has been an issue in Nis, as well as treatment of any waste water and a new WWTP is being constructed to address this issue.	
3.9.2	<i>Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.</i>	 Yes
Comment	<p>The site has been very proactive in implementing actions to improve the site's water balance, these include the following technical and operational actions:</p> <ul style="list-style-type: none"> - Heat Recovery FTD (Flashing Tower Drier) where steam is introduced to the tobacco, to fluff it and make it wet. Heat from FTD was discharged into the air and PMOP recognised the opportunity for heat recovery. This would reduce the demand for steam and improve the site water balance. - Use wastewater from RO and Cooling towers blow down for scrubbers in the primary production area. - Installation of new water meters: installation of internal water meters in order to monitor and control water consumption in sub processes. The data feeds into the DSS process, allowing the site to improve the live monitoring of water use. - Increased cooling tower conductivity bd to 3200us, in order to reduce refill cycles. - Use of rainwater for irrigation. - Water softener flushing system upgrade, in order to reduce water consumption. - Vacuum pump heat recovery. 	
3.9.3	<i>Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.</i>	 Yes
Comment	<p>The site has undertaken a range of actions to address water quality and the following could be considered best practice, at this stage of their ,certification journey.</p> <ul style="list-style-type: none"> - The site undertakes annual Trash Challenges, as surface water quality is an issue due to the lack of a waste water treatment plant in Nis. This is therefore seen as an important awareness raising of water quality issues and pictures were supplied for the 2022 challenge. - The Bio Circle machine is a closed system self purification system, (circular) it can check machine parts that contain oil and glue, so that this is not introduced to wastewater during a more traditional cleaning operation, and there is one such unit installed at the site. - The site has replaced conventional cleaning agents with a biodegradable agent in the factory restaurant and for industrial cleaning. New products have been identified and ISS have been requested to attend the site, to see how well the new products clean and what quantities are required in the various cleaning processes.. 	
3.9.4	<i>Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.</i>	 Yes
Comment	Please reference 3.5.1.	
3.9.5	<i>Actions towards achieving best practice related to targets in terms of WASH shall be implemented.</i>	 Yes

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)






Audit Number: AO-000415

Comment The site is at the early stages of implementing specific actions towards achieving best practice for WASH, such as case study work is planned for 2023 (Q1 and Q2) with academia and the Green Build NGO, to explore potential projects to improve WASH provisions. The site did implement robust Covid 19 prevention measures and was able to operate shifts during lockdown, as a result of those protocols, which is a pertinent example of current best practice.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

4		STEP 4: EVALUATE - Evaluate the site's performance.
4.1	<i>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.</i>	
4.1.1	<i>Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.</i>	 Yes
Comment	<p>The site supplied the 'Evaluation' version of the WSP, which captures evaluation outcomes in an effective manner. The site is at the early stages of being able to meaningfully evaluate actions in the WSP, but nine actions have been completed and their evaluation recorded. The results are measured in economic savings, water savings and quality. Some examples from the technology and social & community actions are:</p> <p>Technology Actions</p> <ul style="list-style-type: none"> - Use wastewater from RO and Cooling Towers blown down for scrubbers in primary: Target is saving of sanitary (potable) water if 6000 m3/yr which is the equivalent of 1200\$/year. - Installation of 17 new water meters: the target is that it will result in the saving of 1500 m3/year of sanitary water. The project was completed in September 2022 and evaluation will take place in January 2023. <p>Social and Community Action:</p> <ul style="list-style-type: none"> - Trash Challenge Nis 2022: target was for at least 60 employees and family members to participate. Result: around 8- people participated in the activity. Budget 2000\$. <p>The team has been having weekly progress meeting on the actions in the WSP as well as general progress of the documented AWS system, in preparation for the AWS audit and the results of that focus are evident. The team shared their 'AWS gap assessment and task table' which is a working Gantt chart showing the project development process. The spreadsheet contains a number of tabs: project milestones, action register, questionnaire, notes, useful links, evidence gap assessment. The site has established effective evaluation processes for the AWS system.</p>	
4.1.2	<i>Value creation resulting from the water stewardship plan shall be evaluated.</i>	 Yes
Comment	<p>The evidence for this indicator is also captured in the 'Evaluation' spreadsheet. For the Social & Community Actions, the value creation is defined as social and environmental. For example, for the 'Trash Challenge' the value created was 'increased local awareness and setting a leading example for the mitigation of shared water-related challenges in the catchment territory' this benefit also applies to 4.1.3. And likewise the environmental benefit enhanced water quality conservation strategies to improve water quality status and conservation on a catchment IWRA.</p> <p>For technological actions, the value creation has also been broken down to social and environmental added value. For example. the Installation of RO & Cooling Tower Blow down created social value by the optimisation and consequent reduction in potable water consumption onsite. Environmental value: reduction of water removal from catchment water bodies and increased water availability for other community users and sensitive environments. The same benefits have been identified for the installation of the 17 water meters.</p>	
4.1.3	<i>The shared value benefits in the catchment shall be identified and where applicable, quantified.</i>	 Yes
Comment	Please reference 4.1.1 and 4.1.2.	

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

4.2 Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.

4.2.1 A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.


Yes

Comment The site has supplied a statement, declaring that there were no emergency incidents in 2021.
The site also shared a summary from their KPI reporting for the relevant EHS indicator and it verifies that there were no emergency incidents reported in 2021.

4.3 Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.

4.3.1 Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.


Yes

Comment Key and Relevant stakeholders received a questionnaire form the Site; an English version was made available.

The questionnaire contained the following questions: how wastewater is discharged (the river...), any difficulties with drinking water and WASH, in past 5 years have you faced any water risks, which types of preventative measures have you put in place to address water risks, have you read the PMI report on the water stewardship for 2022, have you faced water quality risks, do you feel that the Nisjava catchment faces water risks, are you aware of sensitive or vulnerable water areas in the catchment, based on the 2022 water stewardship report shared have you found it useful, are the projects identified in the 2022 report useful, based on the report to do you think that PMI has an impact on minority groups in terms human rights, are you aware of best practices that PMI could adapt or projects to undertake, do you know any initiatives or best practices that could be delivered with public sector bodies to address water risks, any other feedback to improve the site's water practices.

The questionnaire asks open questions and does not guide the respondents to support the site. it captures valuable information on perceived catchment IWRAs, asks for best practice and ensures that that the annual report is communicated back to stakeholders and open questions are asked about the contents.

Numerous examples of the site communicating with key stakeholders were supplied as evidence, informing them of their WSP process and requesting supporting documentation on the catchment and relevant water-related issues.

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.

 in progress

Comment The site has supplied evidence of stakeholders providing feedback on the disclosed annual AWS report. At the time of their AWS audit the site had received five feedback forms from external stakeholders and for the internal on-site stakeholders, they received responses back from all four. The site has done the heavy lifting for this indicator but are currently missing the final step, which is summarising the feedback from the stakeholders, including lessons learnt and opportunities for future shared water challenges.

Finding No: TNR-001811

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

5 STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site’s stewardship efforts

5.1 *Disclose water-related internal governance of the site’s management, including the positions of those accountable for legal compliance with water-related local laws and regulations.*

5.1.1 *The site’s water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.* ✔
Yes

Comment The site has developed a 'water-related internal governance' document, which lists the AWS Team, breakdown of individual job titles, and then water-related roles and responsibilities.

5.2 *Communicate the water stewardship plan with relevant stakeholders.*

5.2.1 *The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.* ✔
Yes

Comment The site has disclosed the report, alongside the questionnaire, widely. They reported back on the projects they have undertaken to address the actions listed in the WSP, but they did not disclose the WSP itself. Evidence of who they sent the AWS annual report can be found in 4.4.1 and there are some sample emails uploaded against that indicator.

The site has prepared an English version of their annual report, which is well structured and contains valuable information. It contains the signed commitment, the Water Risk Assessment results and the scenarios from the Water Risk Filter. It presents their social and technological actions, with infographics summarising key water related data. The five AWS standard outcomes are explained and projects highlighted that contribute towards them. There is a good representation of both technical onsite projects and the social awareness raising activities, and the onsite AWS team are introduced to the reader.

5.3 *Disclose annual site water stewardship summary, including: the relevant information about the site’s annual water stewardship performance and results against the site’s targets.*

5.3.1 *A summary of the site’s water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.* ✔
Yes

Comment This is in line with 5.2.1, please reference indicator 4.4.1 for example emails of who the site’s water stewardship performance was disclosed to, via email.

5.4 *Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges; engagement with stakeholders; and co-ordination with public-sector agencies.*

5.4.1 *The site’s shared water-related challenges and efforts made to address these challenges shall be disclosed.* ✔
Yes




Comment This is in line with 5.2.1, the AWS Report contains pages explaining the water risk assessment results, which fed into the initial identification of the shared water challenges. The subsequent pages describe the projects they have initiated to address the shared water challenges. The AWS Report was sent out at the same time as the AWS questionnaire, where they ask stakeholders to provide feedback on shared water challenges. They have also had meetings with the Chamber of Commerce of water challenges, as well as the municipal water supplier JKP Naissus. Examples of disclosure are uploaded in 4.4.1.

5.4.2 *Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.* ✔
Yes


CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000415

Comment	Please see the evidence against 5.2.1, the annual report is comprehensive and covers multiple indicators in Step 5. The site distributed the annual report to their stakeholders, please reference indicator 4.4.1 for examples of disclosure emails.	
5.5	<i>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.</i>	
5.5.1	<i>Any site water-related compliance violations and associated corrections shall be disclosed.</i>	 Yes
Comment	There have been no water-related compliance violations and a statement has been supplied to that effect, as well as KPI data to verify it.	
5.5.2	<i>Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.</i>	 Yes
Comment	This is not applicable, as there have been no compliance violations.	
5.5.3	<i>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.</i>	 Yes
Comment	This is not applicable, as there have been no compliance violations.	

Photographic Evidence from Audit

		 Yes
Comment	There are numerous pictures included in all the indicator presentations.	