



Alliance for Water Stewardship Assessment Report

Prepared for: British American Tobacco South Africa

Prepared by: SGS
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REPORT DETAILS



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DATE SUBMITTED:	16 th June 2022
CLIENT:	British American Tobacco South Africa 1 Prinsloo Avenue, Heidelberg, Gauteng GP, 1441, South Africa Galekae Motswadira - galekae_motswadira@bat.com
AUDIT TEAM:	8th & 9th March 2022 (on-site by both auditors), 13 th , 26 th and 28 th April (virtual by both auditors) Lead Assessor: Ursula Antúnez de Mayolo (UA) Local Assessor: Ruth Wandera (RW)
SIGNED:	 Ursula Antúnez de Mayolo
TECHNICAL SIGNATORY	 Paula Sofia Gomez Geras
STATUS	FINAL
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1 EXECUTIVE SUMMARY

The scope of services covers the assessment in compliance with the AWS International Water Stewardship Standard Version 2.0 for British American Tobacco South Africa's Heidelberg Factory, in Gauteng, South Africa. The assessment has been completed in compliance with AWS Certification Requirements v 2.0 December 2019 and is a "full" conformity assessment.

British American Tobacco is a global organization whose subsidiaries manufacture fast-moving consumer including tobacco. It has operations world-wide, and in South Africa, subsidiary is British American Tobacco South Africa.

Given the document review undertaken, verification of evidence and on-site audit performed, and subsequent records review, SGS recommends that British American Tobacco South Africa is granted a certificate for a cycle of 3 years to be AWS "CORE" Certified to the Version 2.0 of the AWS standards. Next audit will be the yearly surveillance assessment.

There were nil non-conformance raised during the course of the audit process.

2 SCOPE OF ASSESSMENT

The scope of services covers the assessment to the AWS International Water Stewardship Standard Version 2.0 (CORE Level) for British American Tobacco South Africa (**BATSA**) for their Heidelberg Factory, Gauteng, South Africa. The assessment has been completed in compliance with AWS Certification Requirements v 2.0 December 2019.

The assessment was initiated with 0.35 days off-site (preliminary review), followed by 2 days on-site visit by the Lead Auditor who also has 9 years auditing tobacco factories and farmers in several countries of the world, and a Local Assessor based in South Africa, at the Gauteng Province. Then a record review was conducted virtually by both auditors in 3 sessions of approximately 3-hours each. The geographical scope has been only the Heidelberg Factory.

The detailed dates were: 23rd February (planning/preliminary review off-site), 8th & 9th March 2022 (on-site by both auditors), 13th, 26th and 28th April (virtual by both auditors). The team was composed by 2 auditors at all times:

- Lead Assessor: Ursula Antúnez de Mayolo (UA)
- Local Assessor: Ruth Wandera (RW)

The audit was announced in 3 places:

- AWS webpage: Posted by SGS, published 18th February 2022
- Company Webpage: Uploaded by the client, with the announcement https://www.batsa.co.za/group/sites/BAT_A2ELAD.nsf/vwPagesWebLive/DOALAE2?opendocument
- Social Media: Posted by the client, with link to the announcement

The audit interviews were held for BATSA internal and external stakeholders over 2 days for the factory visit to see the operations, water infrastructure, stormwater system, check the water meters, visit to external stakeholders. BATSA and stakeholders provided the requested supporting documentation as evidence whilst interviewed.

The external stakeholders visited and interviewed onsite were during the audit:

- Suikerbosrand Reserve: It was visited this Reserve for an overview of the ecosystem and to confirm the challenges that they face. A park ranger provided an explanation of the scope of the Reserve and points of contact for cooperation.

- Lesedi Municipality: The Municipality was visited to interview the persons in charge of the water and wastewater management of the city, regarding policies and challenges.
- ERWAT – Municipal Wastewater Treatment Plant: It was visited the WWTP for understanding the context of the water availability and quality. It was confirmed the process for treating the wastewater to discharge again to the river stream. Several supervisors were interviewed in the WWTP.
- ESKORT – Neighbour factory: The factory was visited to confirm the information presented about the best practices and to confirm the stakeholder engagement and challenges in the catchment.

The internal stakeholders visited and interviewed onsite were during the audit: BATSA personnel of different areas, such as:

- Environmental, Health & Safety
- Operations
- Maintenance
- Utilities
- Engineering
- Supply Chain
- Finance
- Human Resources
- Management

3 PHYSICAL SCOPE AND DESCRIPTION OF CATCHMENT

The BATSA Heidelberg factory is located in Heidelberg, Gauteng Province. Heidelberg falls within the water supply area which consists of mixed commercial and industrial properties of the Springfield suburb, as well as formal and informal residential areas in the immediate area, including the Heidelberg Golf Club.

Water is sourced from Lesedi Local Municipality, which is supplied by Rand Water. Rand Water supplies water to the Province of Gauteng, amongst others. Gauteng is supplied with water from the Vaal Dam catchment, which includes the Vaal River, Wilge River and all their tributaries. There are two water transfer schemes that feed into the Vaal Dam catchment, namely the Lesotho Highlands Water Project, which obtains water from the mountains of Lesotho, and the Thukela-Vaal Water Transfer Scheme, which obtains water from Kwa-Zulu Natal and is released into the Vaal Dam catchment when needed (Rand Water, 2022).

Rand Water and Lesedi Municipality report that they are currently exceeding the Authorised abstraction from their source water supply schemes due to the on-going increasing water demand of the Rand Water supply area, and the delay in implementing the Lesotho Highlands Phase 2 project.

The Lesotho Highland Phase 2 project was due to be commissioned in 2019 and is now likely not to be available until 2027, during which time the water demand continues to increase. (Rand Water Forum March 2022).

The site falls within the Upper Vaal Water Management Area, in quaternary catchment C21F, which is part of the Blesbokspruit and Suikerbosrant Catchment Management Area (C21), although water is sourced from the Upper Vaal Catchment System. Gauteng sits on the continental topographical divide.

Run-off and wastewater from the southern side of Gauteng drains towards the Atlantic Ocean via the Vaal and Orange River systems. The majority of wastewater is not returned to its source water catchment.

According to data supplied by BATSA, wastewater is discharged into the Lesedi Local Municipality (LM) bulk sewer line that ends at the Heidelberg Wastewater Care Works (WWCW). This falls within the DD5 drainage district, with final effluent chlorinated before it is discharged into the Blesbokspruit River.

Figure 1 illustrates the **Vaal river Catchment**, which shows the Orange River Basin. Figure 2 is the site boundaries and water infrastructure. Figure 3 are the IWRA's of the catchment.

Figure 1: Vaal River Catchment

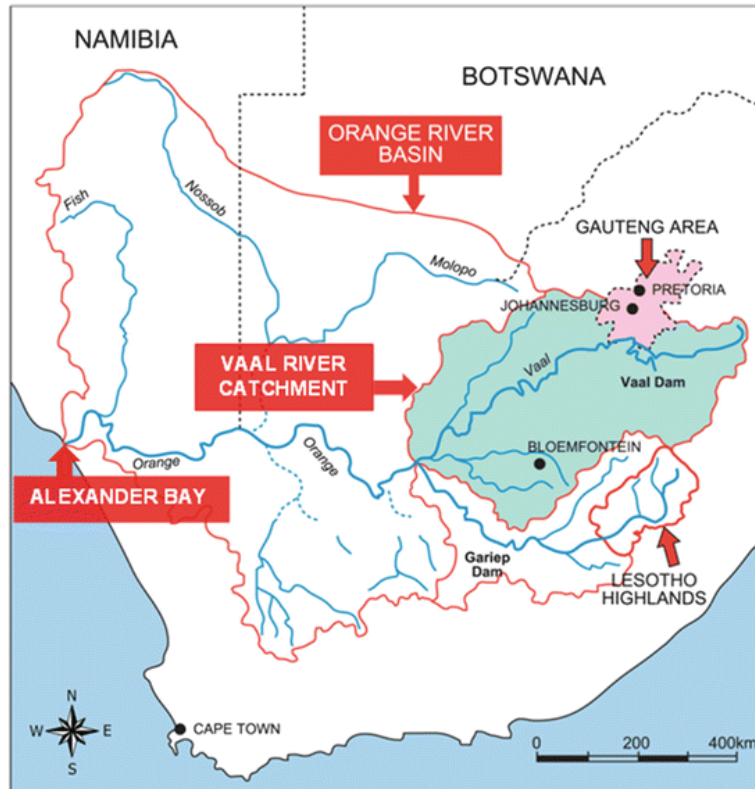
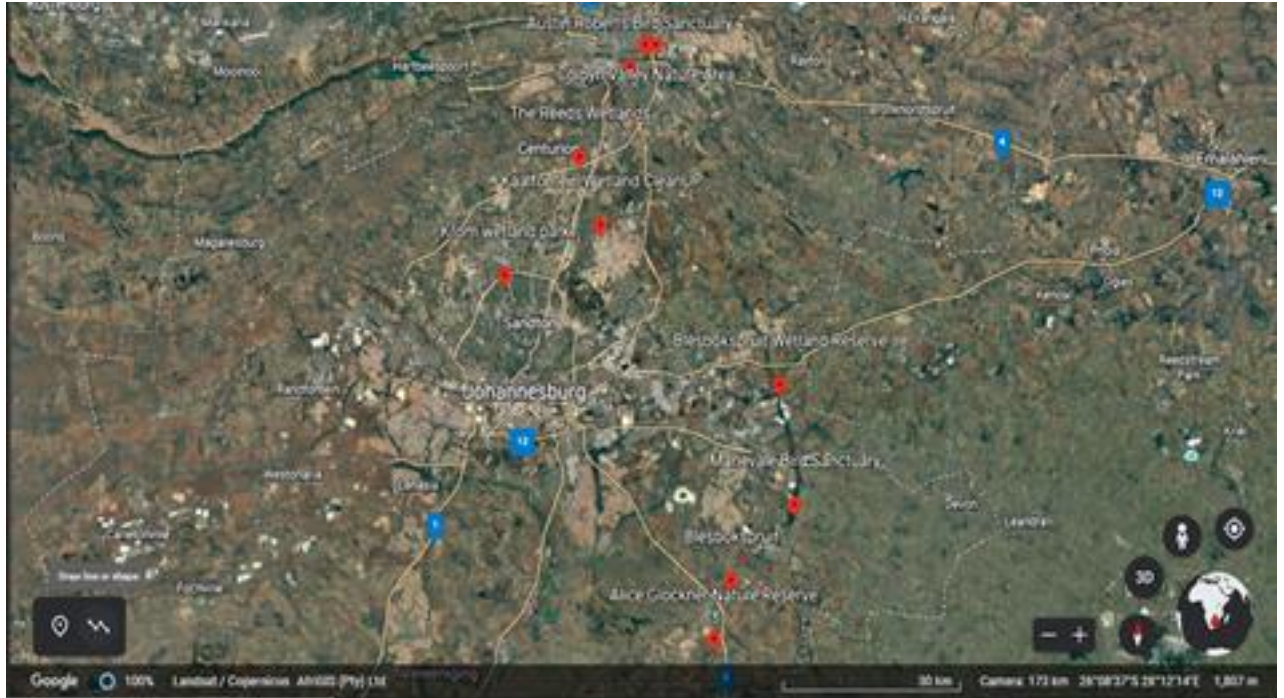


Figure 2: Site Water Infrastructure



Figure 3: IWRA's of the catchment



4 SUMMARY OF SHARED WATER CHALLENGES

A summary of the possible drivers of the water challenges in the following table below. These were collected through discussions with stakeholders, understanding the underlying causes of the different water challenges, and a review of relevant water-related literature on the catchment. The perceived priority challenges are in bold. This was determined following an assessment of the level of risks from the WWF Water Risk Filter and stakeholder discussions.

Shared water challenges in order of priority:

Shared Water Challenge	Key Issues
Water quantity	Rapid urbanization and population growth
	Reliance on transfers from Lesotho and Tugela
	Wasteful/excessive water use (high levels of non-revenue water)
	Unlawful irrigation
Water quality	Surface water contamination (diffuse pollution, discharges from industry and municipalities)
	Groundwater contamination (mainly due to acid mine drainage)
Important water-related ecosystems	Poor wastewater treatment
	Lack of invasive species management and assessment
Extreme weather events	Climate change exacerbating hydrologic extremes
	Multiple crises planning documents from multiple agencies resulting in fragmented planning
Water, sanitation and hygiene	Lack of data/assessment on affordability of water, especially for low-income communities
	Sections of population without access to adequate water and sanitation
Water governance	Financial mismanagement of municipal service providers
	Inadequate maintenance of water infrastructure

5 INDICATORS CHECKLIST

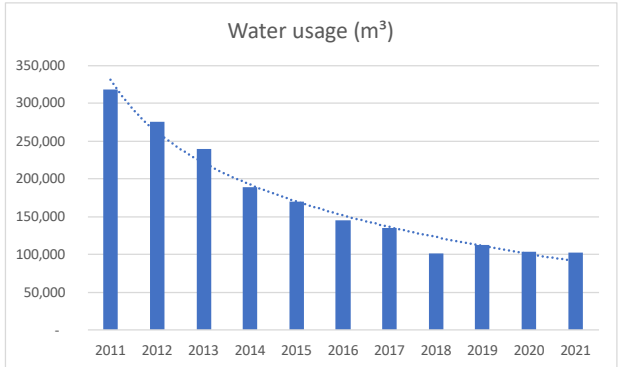
As per the requirement set out in the AWS certification requirements Section 2.11.3.1 it was prepared a checklist of all the CORE AWS indicators with the relevant reviewed evidence provided by BATSA and the indicator with which it is associated. The checklists were aligned to the clauses / indicators of the AWS standard Version 2.0. See the checklist as follows:

Clause	Details	Yes	No	Comments/Evidence
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	<p>The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:</p> <ul style="list-style-type: none"> - Site boundaries; - Water-related infrastructure, including piping network, owned or managed by the site or its parent organization; - Any water sources providing water to the site that are owned or managed by the site or its parent organization; - Water service provider (if applicable) and its ultimate water source; - Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies; - Catchment(s) that the site affect(s) and is reliant upon for water. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>They prepared a map showing the boundaries of the site, including the water-related infrastructure, source of water & service provider and discharge points.</p> <p>"The diagram ""BATSA Heidelberg Site Boundaries"" shows the boundaries of the land owned with a yellow mark. Of these, there is a developed area of 36 ha which is for the factory and administration, and separated by a fence is the undeveloped area of almost 31 ha which is basically a natural vegetated area that does not have any intervention (no watering of the vegetation, or infrastructure, or ponds, or streams), and it just receives the rainfall. During the site visit, it was walked through the developed area, and also checked the undeveloped area.</p> <p>The diagram ""Factory Water Line and Critical Valves"" shows the water reservoir of 1,500 m3 that receives the municipal water, the water meter location and the piping network. All is owned by BATSA. Includes the inflow point (municipal connection), and flow to the reservoir.</p> <p>The water service provider is the ""Lesedi Municipality"" that gets the water from ""Rand Water"" (state company that supplies municipal water), and the ultimate water source is the Vaal River, which is all superficial water.</p> <p>The diagram ""Factory Layout"" specifies the flow of sewage / industrial effluent (brown) and the flow of stormwater (green) and fire water pipeline and infrastructure (blue).</p> <p>The diagram ""WASH facility locations"" shows the toilets, water fountains and kitchen facilities with drinking water points.</p> <p>The wastewater service provider is ""Lesedi Municipality"" that owns the pipelines and then the effluent is treated by ""ERWAT"" which is a private company that has the WWTP, where the ultimate water receiving body is the Blesbokspruit River.</p>

Clause	Details	Yes	No	Comments/Evidence
				<p>The site is located at the Vaal River catchment, specifically at the upper Vaal sub-catchment. The Vaal River is a tributary river of the Orange River Basin that starts in South Africa, and it is shared with Botswana and Namibia downstream. The ultimate water source is the Vaal river catchment which is originated by rainfall."</p> <p>They provided information about he Borehole (capacity / coordinates / geological surveys), and also, they prepared the following maps and diagrams:</p> <ul style="list-style-type: none"> • 1.1a_BATSA Heidelberg Site Boundries • 1.1b_Site Water Infrastructure Layout • 1.1.c_Lesedi Municipality Water and Sewer Network • 1.1d_C21F Quaternary Catchment • 1.1e_Water Service Provider and Ultimate Receiving Body • 1.1.f "Vaal River Catchment Map".
1.2	Understand relevant stakeholders, their water-related challenges, and the site's ability to influence beyond its boundaries.			
1.2.1	<p>Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:</p> <ul style="list-style-type: none"> - Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people; - Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies; - Provide evidence of stakeholder consultation on water-related interests and challenges; - Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups; - Identify the degree of stakeholder engagement based on their level of interest and influence. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Their excel "1.2.1a_ Stakeholders Mapping Final" lists all the stakedholders and characteristics, being these, internal and external stakeholders. They consider: Stakeholder Type Within Catchment, Stakeholder Level, Stakeholder Influence, Interest, Engagement matrix, Role (Linkage to the Site), Method of influence, Communication Method, Contact Person Details, Expectations, Water challenges of the stakeholder, Shared Water Challenge Stakeholders Mapping Final lists the individual challenges per stakeholder.</p> <p>Document The Stakeholder Mapping Document saved as 1.2.1a_ Stakeholders Mapping Final considered a wide range of stakeholders within the catchment as indicated in Column C and linkage to site Column H</p> <p>Source: 1.2.1a_ Stakeholders Mapping Final.xlsx</p> <p>Evidence provided under stakeholder mapping</p> <p>Shalom Ministries (Shelter for women and children), Lesedi Community Centre, were identified as Vulnerable women and children.</p> <p>Observation 01:</p> <p>It could be considered to search if it exist evidence of absence of Indigenous people in the catchment.</p> <p>Evidence provided for the following consultations:</p> <ol style="list-style-type: none"> 1. Alice Glockner Nature Reserve on 16th March 2022 evidence of photographs in presentation: Alice Glockner Nature Reserve.pptx

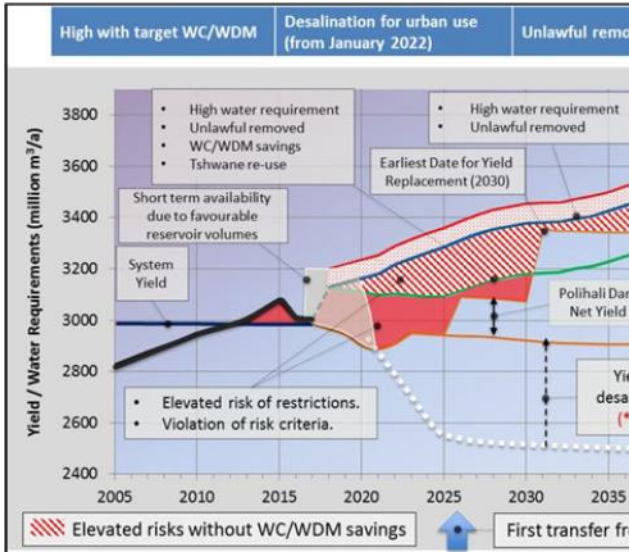
Clause	Details	Yes	No	Comments/Evidence
				<p>2. Heidelberg Water Care Works on 1 March 2022, evidence of photographs in presentation as well as attendance register. HWCW Visit.pptx</p> <p>3. Lesedi Education and Awareness Forum on 28th March 2022 Invitation LEAF 28 March 2022 Meeting.pdf</p> <p>4. LEAF meeting register and minutes provided for 23 February 2022 LEAF Meeting Register.pdf</p> <p>5. Marievale Bird Sanctuary visit on 16 March 2022 Marievale Bird Sanctuary Visit.pptx</p> <p>6. Lesedi Municipality minutes and attendance register for 2 February 2022 Municipal Offices Visit Minutes.xlsx</p> <p>7. People and parks meeting register saved here People and Parks meeting 18-Mar-2022 Suikerbosrand Nature Reserve.pdf</p> <p>8. ERWAT meeting register on 1 March 2022 Stakeholder Engagement - ERWAT Register.pdf</p> <p>9. Suikerbosrand Nature Reserve attendance register for 18 March 2022 as well as photographs in presentation found here: Suikerbosrand Meeting 18032022.pptx</p> <p>Challenges were summarised in the Stakeholder Mapping sheet column M 1.2.1a_ Stakeholders Mapping Final.xlsx</p> <p>Document 1.2.1a Stakeholders mapping lists names of stakeholders, their level of influence/power of the stakeholder, level of interest (High/Low), engagement matrix, communication method, role (linkage to site), contact details and the Stakeholder's expectations. 1.2.1a_ Stakeholders Mapping Final.xlsx (sharepoint.com)</p> <p><u>Opportunity for improvement 01</u></p> <p>The following map was provided but it would be more graphic to show where is located each stakeholder within the catchment.</p> <p>1.5a10_ Vaal river Catchment 2.gif it shows the Orange River Basin.</p>
1.2.2	Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The stakeholder identification process was provided in document saved as 1.2.2 Stakeholder degree of influence Source: 1.2.2 Stakeholder degree of influence.docx

Clause	Details	Yes	No	Comments/Evidence
				<p style="text-align: center;">Figure 2: Stakeholder influence and engagement matrix</p> <p style="text-align: center;">Figure 1: Stakeholder power, interest, and engagement matrix</p>
1.3	Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.			
1.3.1	Existing water-related incident response plans shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The following response plans are available:</p> <ul style="list-style-type: none"> • 1.3.1 a Water Emergency Related Situations • 1.3.1 b_Emergency Release Response Plan • 1.3.1.c Spill Management Procedure • BAT South Africa Business Continuity Plan (there is mention of action to be taken should the borehole pump fail this is the only reference to water related incidents)
1.3.2	Site water balance, including inflows, losses, storage, and	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They prepared a “Water Balance” in excel for the year 2021. It includes the supply, consumption, and estimated

Clause	Details	Yes	No	Comments/Evidence																								
	outflows shall be identified and mapped.			losses. For each water point, it indicates if it is metered or estimated. Furthermore, it is calculated the percentage of contribution to the total. The same excel file, has one tab for the monthly figures of Municipal water supply and effluent.																								
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>They prepared the document “1.3.3 Water usage - Annual variance in water rates” in excel for the year 2021. See diagram</p> <p>Also, they track the monthly consumptions to see the highest and lowest points through the year.</p>  <table border="1"> <caption>Water usage (m³) Data</caption> <thead> <tr> <th>Year</th> <th>Usage (m³)</th> </tr> </thead> <tbody> <tr><td>2011</td><td>320,000</td></tr> <tr><td>2012</td><td>270,000</td></tr> <tr><td>2013</td><td>240,000</td></tr> <tr><td>2014</td><td>200,000</td></tr> <tr><td>2015</td><td>180,000</td></tr> <tr><td>2016</td><td>160,000</td></tr> <tr><td>2017</td><td>140,000</td></tr> <tr><td>2018</td><td>110,000</td></tr> <tr><td>2019</td><td>110,000</td></tr> <tr><td>2020</td><td>100,000</td></tr> <tr><td>2021</td><td>100,000</td></tr> </tbody> </table>	Year	Usage (m³)	2011	320,000	2012	270,000	2013	240,000	2014	200,000	2015	180,000	2016	160,000	2017	140,000	2018	110,000	2019	110,000	2020	100,000	2021	100,000
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2018	110,000																											
2019	110,000																											
2020	100,000																											
2021	100,000																											
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>It was provided the test results “CONCISE WATER QUALITY EVALUATION” for several points across the factory site.</p> <p>Also it was provided Legionella Test Results of 2021, where all the samples were below 50 cfu/litre</p> <p>Checked also the test report 122557 “CONCISE WATER QUALITY EVALUATION” of canteen, all compliant.</p>																								
1.3.5	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They provided a diagram “Mapping of chemicals” and an excel “Chemical Areas” with the detail of all storage locations. Furthermore, MSDS (Material Safety Data Sheet) were provided.																								
1.3.6	On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Currently there are no Important Water Related Area within the site																								
1.3.7	Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The site prepared the spreadsheet “Water Related Costs” as well as the document “Water Cost Value” for economic, social and environmental values. The value generated expected is:</p> <p><u>ECONOMIC VALUES:</u></p> <ul style="list-style-type: none"> • Job creation <ul style="list-style-type: none"> ✓ Engineering team members ✓ By outsourcing our water quality analysis, we are creating jobs for the lab analysts who carry out the analysis of our water 																								

Clause	Details	Yes	No	Comments/Evidence
				<ul style="list-style-type: none"> • Payment of water bills to the government equivalent to approximately 4.9 Million and this money is used by the govt to improve on its economic status • By recycling 9500 M3 of water at the RO plant we are able to save 2.3 million amount of money <p><u>SOCIAL VALUES:</u></p> <ul style="list-style-type: none"> • Safe and quality water provision for the employees • By recycling 9500 m3 of water we can save this water and it can be used by 33000 number of homesteads (On a daily basis, a water wise family of four will use 282l/0.282M3) <p><u>ENVIRONMENTAL VALUES:</u></p> <ul style="list-style-type: none"> • Safeguarding aquifer from pollution-Having a robust environmental risk assessment and controls in place like spill kits and bunding we are ensuring that our activities on site are not detrimental to the environment and in case of any accidental spillage there are process in place to avoid pollution of the water bodies around us. • As members of LEAF and People and Parks we partner in catchment protection and improvement initiatives
1.3.8	Levels of access and adequacy of WASH at the site shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site provided a summary in the document “Site WASH facilities”, as well as an excel “WASH Study Heidelberg”, and a diagram “Factory Layout – with WASH”
1.4	Gather data on the site’s indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.			
1.4.1	The embedded water use of primary inputs, including quantity, quality and level of water risk within the site’s catchment, shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The primary inputs used by the site that are within the same catchment are the packaging material (boxes and cartons). The tobacco farmers are not within the catchment, as the southafrican farmers are of Limpopo province which provide about half of the tobacco, and the other half is purchased globally.</p> <p>For some suppliers it was identified the water usage, however, there are some still pending.</p> <p>All the suppliers were evaluated with their level off risk and if they belong to the catchment or not. They requested the data for all key suppliers.</p> <p>Observation 02: It could be considered to continue searching for data of the embedded water usage of inputs.for data of the embedded water usage of inputs and outsourced services.</p>
1.4.2	The embedded water use of outsourced services shall be identified, and where those	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The outsourced services used by the site that are within the same catchment are the ones operating within the facility (catering, cleaning services, etc)

Clause	Details	Yes	No	Comments/Evidence
	services originate within the site's catchment, quantified.			It was identified the water usage, with their level off risk and if they belong to the catchment or not.
1.5	Gather water-related data for the catchment, including: water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH			
1.5.1	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The document 1.5 Water Related Data for the catchment section 1.5.1 on page 4 of 17 (1.5_Water Related Data for the Catchment.pdf)discusses the following supply systems</p> <ol style="list-style-type: none"> 1. Rand Water Supply System 2. The Thukela-Vaal Water Transfer Scheme 3. The Lesotho Highlands Water Project 4. Rand Water Distribution Network
1.5.2	Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 1.5.2 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 8 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site. 1.5_Water Related Data for the Catchment.pdf</p> <p>The following information was provided in the above-named document</p> <p>Water Legislation</p> <p>A summary of the current water related legislation in South Africa is provided below, however this is limited to national legislation and does not include local by-laws or site-specific licenser or permits.</p> <ul style="list-style-type: none"> • Constitution of the Republic of South Africa, 1996 • National Water Act 36 of 1998 • Water Services Act 108 of 1997 • National Environmental Management Act 107 of 1998 • National Environmental Management: Waste Act 59 of 2008 • National Environmental Management: Biodiversity Act 10 of 2004 • National Environmental Management: Protected Areas Act 57 of 2003 • Municipal Systems Act, Act 32 of 2000
1.5.3	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Section 1.5.3 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 9 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site. 1.5_Water Related Data for the Catchment.pdf

Clause	Details	Yes	No	Comments/Evidence																				
				 <p>Figure 1.5-7: Rand Water System Balance for Target Reconciliation Strategy (2021)</p> <p>Source: page 10 of 17 of 1.5 Water Related Data for the catchment</p> <p>Lesedi Municipal Water Balance was provided for 2021 with the following link to BAT documents:</p> <p>Table 1.5-1: Lesedi Municipal Water Balance Summary 2021</p> <table border="1" data-bbox="885 1254 1500 1568"> <thead> <tr> <th>Year Ending</th> <th>Jul 2021</th> <th>Aug 2021</th> <th>Sep 2021</th> </tr> </thead> <tbody> <tr> <td>Indicator as % of system input volume</td> <td></td> <td></td> <td></td> </tr> <tr> <td>% Revenue water</td> <td>54.8%</td> <td>60.3%</td> <td>69.9%</td> </tr> <tr> <td>% Non-revenue water</td> <td>45.2%</td> <td>39.7%</td> <td>30.1%</td> </tr> <tr> <td>% Water Losses</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> </tbody> </table> <p>1.5g_IWA water balance spreadsheet Lesedi LM 2019-2020_.xlsm (sharepoint.com)</p>	Year Ending	Jul 2021	Aug 2021	Sep 2021	Indicator as % of system input volume				% Revenue water	54.8%	60.3%	69.9%	% Non-revenue water	45.2%	39.7%	30.1%	% Water Losses	100%	100%	100%
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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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 1.5.4 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 11 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site. 1.5_Water Related Data for the Catchment.pdf</p> <p>The parametres measured quarterly are chemical and bacteriological: pH, EC, COD, NH3, NOX, P, SS, E coli.</p> <p>In this section the following were considered:</p>																				

Clause	Details	Yes	No	Comments/Evidence
	appropriate, seasonal, high and low variances shall be identified.			<p>Blesbokspruit Water Quality 1.5c3_Erwat_Blesbok_Oct-Dec2021 - Quarterly Water Quality Status.pdf</p> <p>Rand Water Quality - Rand Water supply to Lesedi 12month water quality report.pdf</p> <p>Observation 03:</p> <p>It could be interesting to review if ERWAT by the site, as they did not meet the license requirements for Ecoli on numerous occasions in 2021.</p>
1.5.5	Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 1.5.5 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 13 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site. 1.5_Water Related Data for the Catchment.pdf</p> <p>The document indicated the following:</p> <p>The important water related areas located near Heidelberg and the BAT facility include the following:</p> <ul style="list-style-type: none"> • Suikerbosrant Nature Reserve • Blesbokspruit Wetland (Ramsar Site) / Marivale Bird Sanctuary • Alice Glockner Nature Reserve • Heidelberg Golf Course • Vaal Dam • Vaal Barrage
1.5.6	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 1.5.6 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 15 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site. 1.5_Water Related Data for the Catchment.pdf</p> <p>Rand Water Maintenance</p> <p>Further details are provided in the Rand Water BWD Operations and Maintenance 2022:</p> <p>Operations AND Maitenance of distribution Network November 2021RW.pptx (sharepoint.com)</p> <p>The Lesedi Local Municipal Water Safety and Security Plan (2018/2019) defines the water supply network, associated risks and mitigation measures to be put in place to ensure the safety and security of the water supplied.</p> <p>1.5a16_Blue Drop Newest Water Safety and Security Plan 2018 2019 (Lesedi Municipality).docx (sharepoint.com) Heidelberg WWCW</p> <p>According to the ERWAT Annual Performance Report of 2019/2020, the Heidelberg WWCW was operating and achieving an overall performance score of 90% or more, and therefore was not scheduled for any specialised</p>

Clause	Details	Yes	No	Comments/Evidence
				maintenance or upgrades. 1.5k ERWAT Annual-Report-2019-2020.pdf
1.5.7	The adequacy of available WASH services within the catchment shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 1.5.7 was addressed by a summary document – 1.5 Water Related Data for the catchment on page 16 of 17 under: Sect 1.5 Related Data for Catchment of the BAT Teams site.</p> <p>According to the Lesedi Municipal Draft IDP for 2022 / 2023 “Large amounts of infrastructure investment is required over the short term (5 to 10 years) to address the basic services backlog.</p> <p>Critical bulk water, sanitation and electricity infrastructure are needed for key economic developments.”</p> <p>The key challenges reported in relation to water and sanitation provision in the Lesedi Municipality. include:</p> <ul style="list-style-type: none"> • Pressurized infrastructure due to the migration of people from Rural to Urban areas. • Influx of people into the Municipal Area due to soft borders. • Proliferation of informal settlements. • Waste Water Care Works operation above the design capacity. • Influx of people to areas that do not have service provision (Kaydale). • Unauthorized tanker services which discharge directly into Municipal Sewer System. • Discharge of unacceptable effluent quality by industries into the Municipal sewer network. • Theft and vandalism of the sewer network and WWCW. <p>Source: 1.5j Lesedi IDP 2022 23 submission CoGTA.pdf</p>
1.6	Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site’s water challenges.			
1.6.1	Shared water challenges shall be identified and prioritized from the information gathered.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>1.6.1a shared water challenges document was provided at the time of the audit -it lists the water challenges in the catchment as well as the key issues .</p> <p>1.6.1a Shared Water Challenges.docx.</p> <p>The key issues associated with the shared water challenges identified are:</p> <ul style="list-style-type: none"> • Rapid urbanization and population growth • Reliance on transfers from Lesotho and Tugela • Wasteful/excessive water use (high levels of non-revenue water) • Unlawful irrigation • Surface water contamination (diffuse pollution, discharges from industry and municipalities) • Groundwater contamination (mainly due to acid mine drainage)

Clause	Details	Yes	No	Comments/Evidence
				<ul style="list-style-type: none"> Poor wastewater treatment Lack of invasive species management and assessment Climate change exacerbating hydrologic extremes Multiple crises planning documents from multiple agencies resulting in fragmented planning Lack of data/assessment on affordability of water, especially for low-income communities Sections of population without access to adequate water and sanitation Financial mismanagement of municipal service providers Inadequate maintenance of water infrastructure
1.6.2	Initiatives to address shared water challenges shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Document 1.6.2 Initiatives to address shared water challenges was provided at the time of the audit – it lists targets as well as potential initiatives identified through stakeholder engagements.</p> <p>1.6.2 Initiatives to address shared water challenges.docx (sharepoint.com)</p>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Document 1.7.1 Water Risk and Opportunities assessment identifies the risk, its classification, business impact, likely cause, initiatives in place, likelihood, consequence, risk rating and mitigations. The risk matrix is explained in a second tab. Source document can be found here: 1.7.1 Water Risk and opportunities Assessment.xlsx (sharepoint.com)</p> <p>Document 1.7.1b site water risks were identified here: 1.7.1.b Site water risks-WRF.docx (sharepoint.com)</p>
1.7.2	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>BAT Heidelberg Recycling Plan 2022 was provided during the audit and can be found here: 1.7.2 BAT Heidelberg Recycling Plan 2022 presentation -1.pptx (sharepoint.com)</p> <p>Water withdrawn in 2021 was 106,321m3 while water recycled was 8,832m3 which was only 7.9%. The water recycling Capex Requirements for 2022 include the following initiatives</p> <ol style="list-style-type: none"> Install Effluent Treatment Plant and treat all the effluent water Direct borehole water to the RO Plant Water recycling at 2021 rate Water Saving initiatives for 2022 include Install remote water sensors for taps Replace underground water pipes with surface/overhead (Phase 1)

Clause	Details	Yes	No	Comments/Evidence
				7. Reroute PMD basement sump water to the RO plant 8. Reroute coal bunker water to the RO Plant 9. Metering of all departments 10. Install waterless urinals
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Document 20220307 Sectoral Best practices document was provided at the time of the audit link to the document is as follows: 20220307 Sectorial Best Practices-1.8.docx (sharepoint.com) The following was identified in the document provided 1. Engaging with relevant stakeholders to promote water stewardship: Water stewardship awareness and engagement 2. Participating in multi-stakeholder platforms to manage water issue in the catchment i.e., membership in LEAF 3. Supporting, participating and or partnering in public sector initiatives on water issues: a. Partner with LEAF in the water week event-29th March 2022 b. Partner with LEAF by participating in the planned events as per the environmental calendar of 2022 c. Joining the People and Parks Forum – Suikerbosrand Nature Reserve 4. Comprehensive water stewardship plan that is well implemented and reviewed
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The following was identified in the document provided here 20220307 Sectorial Best Practices-1.8.docx (sharepoint.com) 1. Investing in water efficiency projects to reduce water use 2. Establishment of a leak detection and corrective action program 3. Establishing daily water use reading, reporting, and tracking system 4. Installation of water efficient toilet facilities or units to reduce water use 5. Conducting regular training of workers and inclusion of water aspects in inductions
1.8.3	Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The following was identified in the document provided here: 20220307 Sectorial Best Practices-1.8.docx (sharepoint.com) 1. Municipal water quality monitoring program to understand the incoming water quality dynamics 2. Effluent water quality monitoring program to understand the water quality dynamics of discharge effluent 3. Borehole water quality monitoring program to understand the water quality dynamics of the aquifer

Clause	Details	Yes	No	Comments/Evidence
1.8.4	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The following was identified in the document provided for onsite; source document: 20220307 Sectorial Best Practices-1.8.docx (sharepoint.com)</p> <ol style="list-style-type: none"> Borehole water quality monitoring program to understand the aquifer water quality dynamics Plant trees in BAT undeveloped area <p>The following was identified in the document provided for Catchment</p> <ol style="list-style-type: none"> Clean up activities of Blesbok river Participate in planned LEAF environmental activities as per the calendar Participate in planned PnP activities as per the calendar
1.8.5	Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The following was identified in the document provided here: 20220307 Sectorial Best Practices-1.8.docx (sharepoint.com)</p> <ol style="list-style-type: none"> Establishment of Covid 19 prevention measures Provision adequate wash facilities over and above the minimum requirement Provision of quality drinking water for all workers in BAT
2	COMMIT AND PLAN			
2.1	Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.			
2.1.1	<p>A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:</p> <ul style="list-style-type: none"> - That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes - That the site implementation will be aligned to and in support of existing catchment sustainability plans - That the site's stakeholders will be engaged in an open and transparent way - That the site will allocate resources to implement the Standard. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BATSA prepared a Water Stewardship Policy aligned to the requirements of the standard, signed on 25 th April 2022, and published it on their webpage.

Clause	Details	Yes	No	Comments/Evidence
2.2	Develop and document a process to achieve and maintain legal and regulatory compliance.			
2.2.1	<p>The system to maintain compliance obligations for water and wastewater management shall be identified, including:</p> <ul style="list-style-type: none"> - Identification of responsible persons/positions within facility organizational structure - Process for submissions to regulatory agencies. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Document 2.2a EHS Legal register was provided 2.2 a EHS Legal Register 2021 (002).docx (sharepoint.com)</p> <p>In Identification of responsible persons/positions within facility organizational structure the following procedure was provided: 2.2.b Monitoring of Changes to Acts and Regulations.docx (sharepoint.com)</p> <p>An AWS legal Matrix was also provided: Water regulations Review AWS_RSA_160222_Rev1_draft.xlsm (sharepoint.com)</p> <p><u>Responsibility</u></p> <p>Legal Department-Identification and interpretation of new or modified legal requirements</p> <p>Notify the affected department on changes in any legal requirements</p> <p>Legal Department & EHS-Verification and Evaluation of Compliance to the legal requirements</p> <p>Departmental heads-Cascade of changes of legal requirements to the employees</p> <p>Communication Department and EHS-Communicate any changes to the external and internal stakeholders via Libryo online system.</p> <p>External Affairs and EHS -Engagement with relevant government officials</p> <p>EHS and Finance - Renewal of licenses and permits</p> <p>Process for submissions to regulatory agencies.</p> <ul style="list-style-type: none"> • Identification of new or modified legal requirements shall be identified by the legal team via Gazette notices. • The impacts of the legal requirements shall be fully evaluated by the legal team. • If there are any Proposed and pending requirements, they shall be tracked by the legal department. • Comments shall be provided to regulatory agencies if proposed requirements may have significant impacts on the company operations. • The departments/persons affected shall be informed about the changes via Libryo online system • Dissemination shall be conducted to ensure that operational and functional units are informed about new requirements and their effects.
2.3	Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.			
2.3.1	A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They prepared the document 2.3.1 Water Stewardship Strategy defining the mission, vision, governance, strategic goals, main objectives, outcomes and guiding principles.

Clause	Details	Yes	No	Comments/Evidence																								
	towards good water stewardship in line with this AWS Standard.																											
2.3.2	<p>A water stewardship plan shall be identified, including for each target:</p> <ul style="list-style-type: none"> - How it will be measured and monitored - Actions to achieve and maintain (or exceed) it - Planned timeframes to achieve it - Financial budgets allocated for actions - Positions of persons responsible for actions and achieving targets - Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They prepared the matrix "BATSA WATER STRATEGY PLAN 2022 (WORKING DRAFT) FOR CIRCULATION TO STAKEHOLDERS" which indicates the outcome, the target, the measure and monitoring, actions, timeline, budget, responsables and link to best practice. The targets are related to compliance with quality parameters, water reduction, communication about water stewardship within the business, water recycling, improved WASH, biodiversity, stakeholder engagement, etc.																								
2.4.1	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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>They have Emergency Response Plans, as well a "Site's Rsponsiveness and Resilience Water Risks" spreadsheet plan. This includes:</p> <ul style="list-style-type: none"> • Flood risk from storms and poor water infastructure • Pollution events • Decreasing water quality trends • Water scarcity risks • Climate Change causing significant changes to the hydrological cycle 																								
3	IMPLEMENT																											
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The site is a participant in 2022 Water Week Event on 29th March 2022 as per the event checklist provided: 2022 Water Week Event Checklist.docx (sharepoint.com)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Task/Activity</th> <th>Responsibility</th> <th>Time Frame</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>1.Venue</td> <td>Forum Members</td> <td>28 March 2022</td> <td style="text-align: center;">Identified</td> </tr> <tr> <td>2.Invitations</td> <td>Thato Merafe</td> <td>28 March 2022</td> <td></td> </tr> <tr> <td>3. Branding</td> <td>All stakeholders</td> <td>28 March 2022</td> <td></td> </tr> <tr> <td>4. Stalls</td> <td>All stakeholders</td> <td>28 March 2022</td> <td></td> </tr> <tr> <td>5. Pamphlets</td> <td>Stakeholders to bring relevant pamphlets</td> <td>29 March 2022</td> <td></td> </tr> </tbody> </table>	Task/Activity	Responsibility	Time Frame	Progress	1.Venue	Forum Members	28 March 2022	Identified	2.Invitations	Thato Merafe	28 March 2022		3. Branding	All stakeholders	28 March 2022		4. Stalls	All stakeholders	28 March 2022		5. Pamphlets	Stakeholders to bring relevant pamphlets	29 March 2022	
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				<table border="1"> <tr> <td>6. 50x Yellow Gloves</td> <td>BAT – Galekae Motswadira</td> <td>29 March 2022</td> <td></td> </tr> </table> <p>Agenda for 28th March meeting at LEAF is seen here: AGENDA 28 March 2022 LEAF.doc (sharepoint.com)</p> <p>Register for Education & Awareness Campaign on water pollution held on 29th March 2022 Education and Awareness Drive 29032022 Water pollution.pdf BAT is seen to have attended the event organised by Lesedi Municipality; participant number 10.</p> <p>Meeting invitation by Lesedi Municipality for 28th March 2022 Invitation LEAF 28 March 2022 Meeting.pdf</p> <p>Meeting invitation by Lesedi Municipality for 5th April 2022 Invitation LEAF 5 April 2022 Water Week Event.doc (sharepoint.com)</p> <p>Attendance Register for 4 April 2022 Meeting LEAF Meeting 04042022.pdf BAT is second on the list</p> <p>Attendance Register river clean up event of 5 April 2022 River Clean Up Event 05042022.pdf BAT on attendance register no. 8 & 9 on page 2 of 3</p> <p>Water week programme for 5th April 2022 Water Week Programme.doc (sharepoint.com)</p>	6. 50x Yellow Gloves	BAT – Galekae Motswadira	29 March 2022	
6. 50x Yellow Gloves	BAT – Galekae Motswadira	29 March 2022						
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Evidence provided by the site about their investigation is provided by document here 3.1.2 Measures identified to respect the water rights.docx (sharepoint.com) and email sent to the Municipality saved here 3.1.2- Water rights of others including Indigenous peoples.msg				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The following document was provided: 3.2.1a Water regulations Review AWS_RSA_160222_Rev1_draft.xlsx (sharepoint.com) it shows the legal framework; the subject; applicable law/Custom; the requirement; the status of the site w.r.t this regulation i.e., compliant/non-compliant; Responsible person; comment column; Action Plan; By who; By when and Status</p> <p>1. BAT has indicated that in row 3 of 3.2.1a Water regulations Review AWS_RSA_160222_Rev1_draft.xlsx (sharepoint.com)</p> <p>2. Row 11 of 3.2.1a Water regulations Review AWS_RSA_160222_Rev1_draft.xlsx (sharepoint.com) The Occupational Health and Safety Act, 1993 – These regulations deal with sanitary facilities, drinking water, certain prohibitions as well as the conditions of these facilities that forms part of the work environment.</p>				
3.2.2	Where water rights are part of legal and regulatory requirements, measures identified to respect the water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The following document was provided which lays out the framework for the requirement. 3.2.2 Legal and regulatory requirements.docx (sharepoint.com)				

Clause	Details	Yes	No	Comments/Evidence
	rights of others including Indigenous peoples, shall be implemented.			
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>They have the following documents for the topic: “annual targets to improve site's water use efficiency”. This includes:</p> <ul style="list-style-type: none"> Leak detections and maintenance of water reticulation. Use of smart taps for water conservation. Online metering and sub-metering of depts/processes. Ability to reuse and recycle. <p>They will install a New Water Metering (Proposal #5908) and Purchase Order#5700162350 Installation of smart metering</p> <p>The estimates of loss are in:</p> <ul style="list-style-type: none"> Drainage of reservoir for repairs Pipe losses including underground leaks Water leak before reservoir Sprinkler pipe drainage for repairs <p>Observation 05: The water balance shows that 17% is estimated to be losses. So there is opportunity to minimize them.</p>
3.3.2	Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant challenge of water scarcity.
3.3.3	Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No legally-binding documentation for the re-allocation of water to social, cultural or environmental needs
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>There is a proposed water treatment plan.</p> <p>Kevali Chemicals with their technology partners, Cerafiltec have designed the water treatment plant for worst case quality as per preliminary water quality analysed in order to ensure treated water output water quality that will comply with SANS (South African National Standards) 241 water specification.</p>
3.4.2	Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>a. The proposed water sources will comprise of 2 schemes collecting water from the recently drilled 9 x boreholes as well as the existing borehole.</p> <p>b. The proposed borehole water treatment plant will consist of:</p>

Clause	Details	Yes	No	Comments/Evidence
				i. Raw water storage tank 2. ii. Disinfection dosing iii. Ceramic filtration for solid/liquid separation iv. Filtered water tank v. Reverse Osmosis for reduction of dissolved ions (specifically hardness ions), and vi. Treated water tank
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Currently there are no Important Water Related Area within the site however there is virgin land within the site that can be developed into an IWRA. The land is idle and there are no activities on the land. The site plans to have an afforestation program (using native and exotic tree species) with the aim of reducing pressure on the pre-existing natural forests in the area. The aim of the afforestation will be: <ol style="list-style-type: none"> 1. Conserve the biodiversity of the area 2. Develop and restore long lost ecosystems 3. Prevent soils erosion 4. Reverse climate change and global warming 5. Improve watershed and water tables. See the map of the IWRA's identified in the catchment, and that the site is starting the engagement for supporting their protection.
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	During the site visit, it was confirmed the WASH facilities. The diagram "Factory Layout – with WASH" details: <ul style="list-style-type: none"> • <u>Drinking Water:</u> The site provides treated and safe water to its workers through the drinking water stations (178 in total) established within the site. The site further conducts quarterly monitoring of the drinking water quality to ensure that it is safe for consumption. • <u>Hand washing:</u> The site has established various stations for hand hygiene management. The site has a total of 94 basins for males and 52 for females. The handwashing is fitted with soap dispensers, hand dryers or paper towels. • <u>Toilets:</u> The site has 191 toilets in its facility with a toilet to worker ratio of 1 toilet to 5 workers (both male and female) against the required 1:5 ratio.

Clause	Details	Yes	No	Comments/Evidence
				<p>38 Urinals and 86 toilets for the males (1:15 Toilet ratio; 1:24 Urinal's ratio). 75 toilets for the ladies (1:5 Toilet Ratio).</p> <ul style="list-style-type: none"> • <u>Covid 19 Arrangements</u>: The site has adopted covid 19 preventive measures to ensure all the employees are safe. There is temperature screening during entry to the site and exit from the site with record of the number of personnel who have assessed the site. There is social distancing, sanitation points at the entrance of all buildings and sanitizers at every workstation. All common surfaces door handles are disinfected every 2hrs. employees who come from leave and visitors to the site are required to complete self-declaration to do with COVID 19 exposure. Work from home arrangements in place. Monthly issuance of mask and sanitizers are given as well. Voluntary vaccination drives planned by the company for all employees including contractors. • <u>WASH Communication and Awareness</u>: There are various wash related signs posted strategically around the site. • <u>Maintenance routines</u>: Facility hygiene inspections are conducted daily. These inspections include the verification of cleanliness status, stock levels, and leakage status. • <u>Canteen Facilities</u>: The site operates an on-site canteen facility which is equipped with handwashing stations, waste bins and drinking water points.
3.6.2	Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for Indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site indicated that they are not impinging on the human right to safe water and sanitation of communities through their operations. They are working closely with the Municipality and different forums to understand all related laws around water rights to comply with as an organization
3.7	Implement plan to maintain or improve indirect water use within the catchment.			
3.7.1	Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The target in the Water Stewardship Plan is ≥ 1 engagement with the highest indirect water consumers. They engaged the list of identified indirect water users on their water use and water conservation initiatives.
3.7.2	Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	It was gathered information and current practices from several suppliers and service providers. They provided evidence of 12 email communications with suppliers to request information.
3.8	Implement plan to engage with and notify the owners of any shared water-related			

Clause	Details	Yes	No	Comments/Evidence
	infrastructure of any concerns the site may have.			
3.8.1	Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A as they do not have shared water infrastructure. The external water infrastructure is of the municipality, and the internal is of the site, but it is not shared.
3.9	Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.			
3.9.1	Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site organized “Celebrating Water Week Event – Inhouse” and Invitation LEAF 5 April 2022 Water Week Event”.
3.9.2	Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They site is implementing a wastewater treatment plant to recycle the water.
3.9.3	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site conducted a session “Education and Awareness Drive 29032022 Water pollution” and “Education and Awareness at Taxi Rank 29032022”
3.9.4	Actions towards achieving best practice, related to targets in terms of the site’s maintenance of Important Water-Related Areas shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site participated in the “Blesbospruit River Clean Up” and “RIVER CLEAN UP AWARENESS POSTERS”
3.9.5	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site has WASH facilities of high level, and aims to maintain the infrastructure
4	EVALUATE			
4.1	Evaluate the site’s performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.			
4.1.1	Performance against targets in the site’s water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site prepared the excel “WSP Performance Tracking”. Evidence of awareness events provided and feedback.
4.1.2	Value creation resulting from the water stewardship plan shall be evaluated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site prepared the document “4.1.2 Value Creation and Shared Value Benefits”.
4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A ppt presentation was prepared for “Shared value benefits”. Being structured as: <ul style="list-style-type: none"> • Activity: Education and Awareness • Purpose: to create an awareness among the people on effects of water pollution • Focus: Effects of water pollution

Clause	Details	Yes	No	Comments/Evidence
				<ul style="list-style-type: none"> Target Audience: Commuters, Taxi Drivers and vendors around taxi rank Benefits: Individuals develop a deeper understanding of effects of water pollution and have the skills to make informed and responsible decisions.
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site did not have any emergency situation this year. The site will evaluate the plan at the end of 2022/early 2023 to assess the achievements and necessary updates from the year.
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The following was provided <ol style="list-style-type: none"> Feedback from Lekena Joseph from COGTA 4.4.1 Feedback 1.pdf Feedback from Mperere Mokoka from GDARD Feedback 2.pdf Feedback from Beverly V. Aghanwa from Department of health feedback 3.pdf Feedback from Daniel Tsotesi from Susindlala Feedback 4.pdf Feedback from Nombulelo Sichinga from COGTA Feedback 5.pdf
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site evaluated their water stewardship Plan was updated from the visit, to the review of final documentation, in order to address more broadly the shared water challenges and topics identified at the site visit. The monitoring progress is through the same "Water Stewardship Plan" with a column for monitoring and status of progress

Clause	Details	Yes	No	Comments/Evidence
5	COMMUNICATE & DISCLOSE			
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site prepared a report "Implementation of Alliance for Water Stewardship (AWS) Standard at BAT South Africa" which was circulated to key stakeholders on the 28 April 2022. This includes the Site water-related internal governance, detailing 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	At the report "Implementation of Alliance for Water Stewardship (AWS) Standard at BAT South Africa" it is detailed the performance, tracking and targets.
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	At the report "Implementation of Alliance for Water Stewardship (AWS) Standard at BAT South Africa" it is detailed the performance, tracking and targets. Also, at the chapter of "Performance", it establishes that globally, BAT has made a commitment to reduce the water withdrawn in all its sites by 35% by 2025 (baseline: 2017)
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	At the report "Implementation of Alliance for Water Stewardship (AWS) Standard at BAT South Africa" for stakeholders, they indicated at the Indirect water use
5.4.2	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.			1. Work with suppliers to ensure good water practices are adhered to and understood. 2. Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders 3. Promote regular monitoring and evaluation of water policy and governance where appropriate, share the

Clause	Details	Yes	No	Comments/Evidence
				<p>results with the public and make adjustments when needed</p> <p>They also identified Water reduction opportunities in the following areas:</p> <ol style="list-style-type: none"> 1. Having water metering per department and daily monitoring of consumption, helping us to understand our water usage and site water balance. 2. Steam condensate recovery, recycling the water thus reducing the energy and water used for the boiler operation. 3. Training and awareness on efficient water use. 4. A robust maintenance system coupled with inspection and prompt repairs. These initiatives have contributed to sustainable water balance in the catchment and demonstrate that BATSA has good water governance. <p>For Water quality:</p> <p>To ensure and maintain good water quality, quarterly water analysis of the water on site to ensure good quality water for our employees.</p> <p>An Approved Water Recycling Project Capex 2022 @ R 3,824,662 for the installation of our effluent treatment plant.</p>
5.5	Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.			
5.5.1	Any site water-related compliance violations and associated corrections shall be disclosed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Given that BATSA has not had any water-related compliance violations and in the period under analysis (2021), no corrective actions have been presented for its sustainable water management model. Such disclosure has not been necessary as a result.</p> <p>There were also no site water-related violations that posed significant risk at threat to human or ecosystem health in 2021, so it has not been necessary to notify public bodies.</p> <p>BATSA operates a robust governance program to ensure compliance to all legal and statutory requirements.</p>
5.5.2	Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A. There were no water-related violations for 2021
5.5.3	Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They did not have any water-related violation that may pose significant risk and threat to human or ecosystem health. And the site confirmed that they did not have any water-related violation on the last year

Clause	Details	Yes	No	Comments/Evidence
	relevant public agencies and disclosed.			

6 AUDIT FINDINGS

The findings raised during this certification audit were provided to the site, which were observations to V2-0 of the standard.

- **Observation 01-2022 (clause 1.2.1):** It could be considered to search if it exist evidence of absence of Indigenous people in the catchment.
- **Observation 02-2022 (clause 1.4.1):** It could be considered to continue searching for data of the embedded water usage of inputs.
- **Observation 03-2022 (clause 1.5.4):** It could be interesting to review if ERWAT by the site, as they did not meet the license requirements for Ecoli on numerous occasions in 2021..
- **Observation 04-2022 (clause 3.3.1):** The water balance shows that 17% is estimated to be losses. So there is opportunity to minimize them.

7 SUMMARY

In reviewing the evidence presented by BATSA, it was confirmed that they implemented their water stewardship system appropriately through the interviews and visits to the plant and the stakeholders. This was accompanied with the documentary evidence and actions to address the changes to version 2.0.

There were nil non-conformances raised during the audit process. Observations and Opportunities for Improvement were made during the audit, these are to be considered as areas for improvement which will be reviewed in future surveillance audit.

8 OPPORTUNITIES FOR IMPROVEMENT

- **Opportunity for improvement 01 - 2022 (clause 1.2.1):** The following map was provided but it would be more graphic to show where is located each stakeholder within the catchment. 1.5a10_Vaal river Catchment 2.gif it shows the Orange River Basin.

9 CONCLUSIONS AND RECOMMENDATIONS

Given the evidence reviewed and the audit performed on-site, SGS recommends that BATSA Heidelberg gets certified for a CORE 3-year cycle version 2.0., with annual surveillance audits.

10 REFERENCES

- Commitment
- Diagrams Heidelberg Factory
- Map of catchment
- Water Stewardship Strategy / Plan
- Records of engagement with stakeholders
- Emergency and Resilience plans
- Water Balance
- Licenses for the site
- Monitoring records
- Other support documents