



Alliance for Water Stewardship Remote Core Assessment Report
Prepared for British American Tobacco Singapore
(AWS-000399)

Prepared by: SGS
SGS Pakistan BOSS Ref.: 5014504
Version: 2
Date: February 23, 2022

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REPORT DETAILS


AWS REFERENCE	AWS-000399	
REFERENCE NUMBER	SGS2022_AWS0019	
CLIENT REFERENCE	British American Tobacco – Singapore	
REPORT TITLE	ALLIANCE FOR WATER STEWARDSHIP ASSESSMENT REPORT	
DATE SUBMITTED:	February 23, 2022	
CLIENT:	Kelvin Low Hung Phuay British American Tobacco Singapore 15 Senoko Loop Singapore 758168 E-mail : Kelvin_Low_Hung_Phuay@bat.com	
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STATUS	Final	
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1 EXECUTIVE SUMMARY

The scope of services covers the conformity assessment of water use in compliance with the AWS International Water Stewardship Standard (Version 2.0) for British American Tobacco - Singapore (hereinafter referred to as “BAT Singapore”). The assessment has been completed in compliance with the AWS Certification requirements, Version 2.0 dated March 2019.

British American Tobacco - 15 Senoko Loop Singapore 758168. On 30th November to 1st December 2021, SGS-Pakistan Pvt. Ltd. (hereinafter referred to as “SGS”) conducted the remote-site conformity assessment for BAT Singapore facilities and activities with regard to certification to the AWS Standard (Version 2.0).

There were 06 minor non-conformances raised during the course of the audit process. BAT Singapore responded to the findings raised with root cause analysis and action plans. Our review confirmed that all corrective action plans are acceptable.

Given the review of evidence provided and the remote-site visit performed at BAT Singapore, SGS recommends that BAT Singapore be awarded the AWS Core Certified status with a surveillance audit interval of annual frequency.

2 SCOPE OF ASSESSMENT

The scope of services covers the conformity assessment of water use in compliance with the AWS International Water Stewardship Standard (Version 2.0) for British American Tobacco - Singapore (hereinafter referred to as “BAT Singapore”) located at British American Tobacco - 15 Senoko Loop Singapore 758168. The assessment has been completed in compliance with the AWS Certification requirements, Version 2.0 dated March 2019.

British-American Tobacco Singapore Pte. Ltd. manufactures, imports and, sells tobacco products. The Company offers tobacco ingredients, cigarette, cigars, pipe tobacco, and smokeless snus. British-American Tobacco Singapore serves customers worldwide.

Table 2.1 includes details on SGS audit team.

Table 2.1 SGS Audit Team

Audit Team		Qualifications/Experience
Ali Hashim	Lead Auditor (SGS-Pak)	AWS certified auditor, M.Sc. Applied Chemistry with more than 15 years experience as Water expert in water chemistry, wet analysis, environmental monitoring, environmental impact assessment (EIA), treatment of wastewater, solid waste and hazardous waste anagement, carbon footprinting, Health & Safety Compliance. Project Manager & Skilled trainer in Environmnet, Health & Safety, in performing environmental and social risk assessment in line with the WB, ADB standards.
HOW Kah Kuan	Local Expert	Global Key Account Manager – APAC Environment, Health and Safety SGS Singapore
Paula Sofía Gómez Geras	Technical Review Manager	Depatrment of Sustainability and Climate Change

During the remote assessment, SGS auditor spent 3 hrs on stakeholder consultation meetings and 1.0 day virtual visit of BAT Singapore installations and reviewing activities and documents. Interviews with personnel were also carried out.

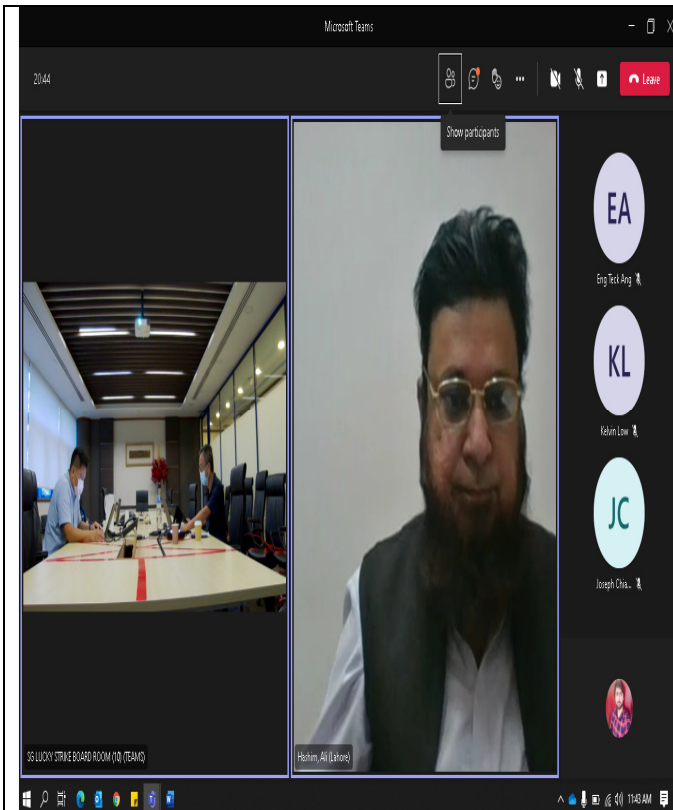
BAT Singapore provided most of the requested supporting documentation as evidence whilst remote site. Outstanding documentation was forwarded on via email. SGS provided initial

feedback on the gaps between BAT Singapore current management and the level required by the standard during the closing meeting of the remote assessment on 30th November to 1st December 2021. BAT Singapore responded that corrective actions will be taken to successfully close all findings raised.

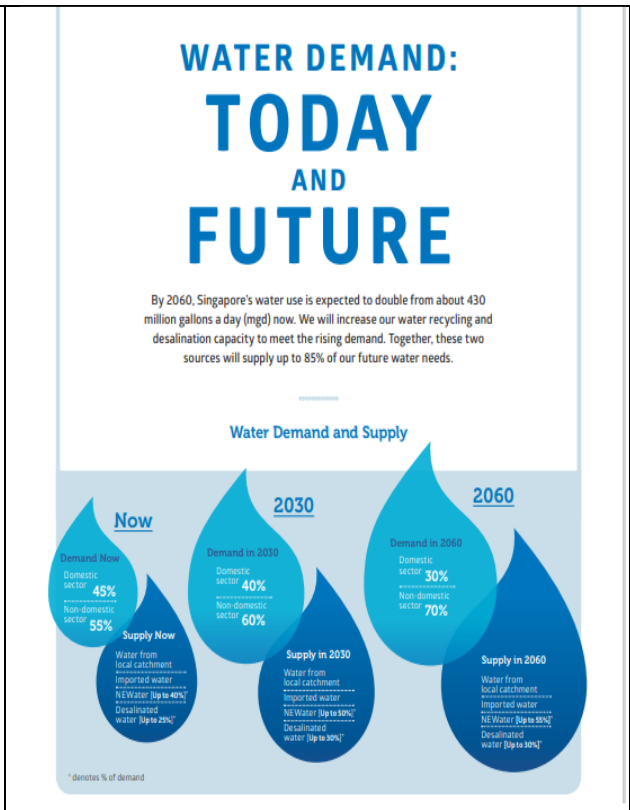
Table 2.2 includes pictures taken while remote visit.

Table 2.2 Photos from BAT Singapore Remote Site Assessment

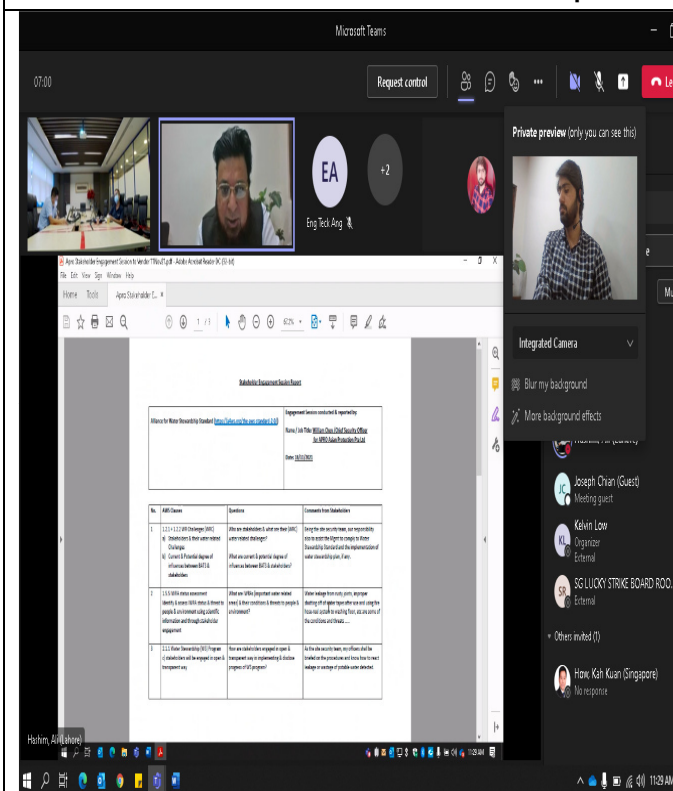
<p>A screenshot of a Microsoft Teams meeting. The main window shows a water dispenser in a break room. The meeting controls and participant list are visible on the right side of the screen.</p>	<p>A screenshot of a Microsoft Teams meeting. The main window shows a water dispenser in a break room. The meeting controls and participant list are visible on the right side of the screen.</p>
<p>Remote Visit at BAT Singapore</p>	<p>Water Dispenser at BAT Singapore</p>
<p>A screenshot of a Microsoft Teams meeting. The main window shows a meeting room with several participants seated around a table. The meeting controls and participant list are visible on the right side of the screen.</p>	<p>A screenshot of a Microsoft Teams meeting. The main window shows a meeting room with several participants seated around a table. The meeting controls and participant list are visible on the right side of the screen.</p>
<p>AWS Auditee and stakeholder consultation</p>	<p>AWS BAT Singapore Remote audit</p>



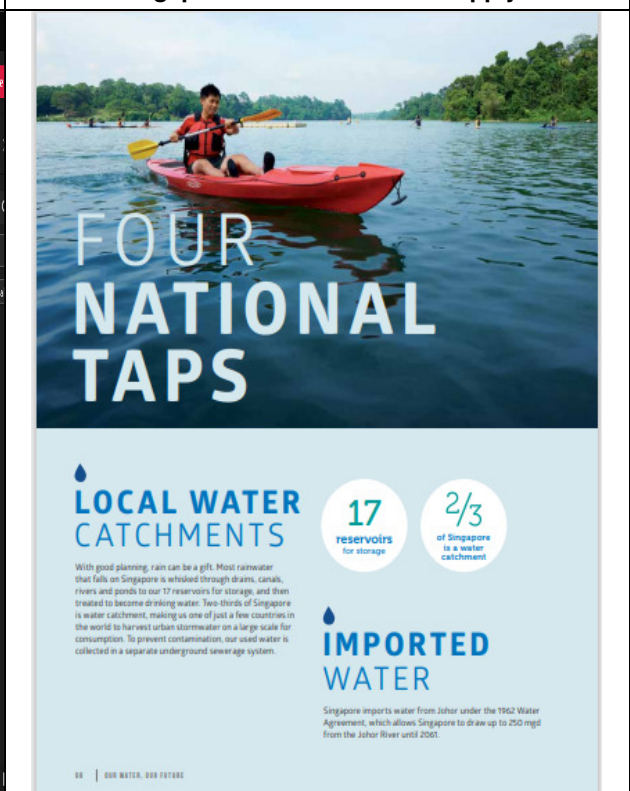
Stakeholder consultation with SGS Local Expert



Singapore Water Demand & Supply



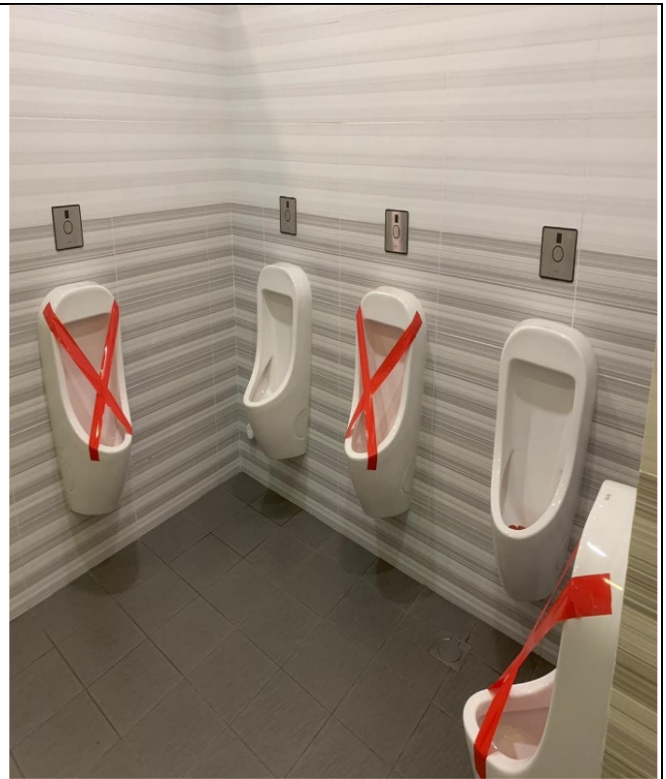
Stakeholder Engagemnet Session at BAT Singapore



Singapore Catchment



Engineering Block (BAT Singapore)



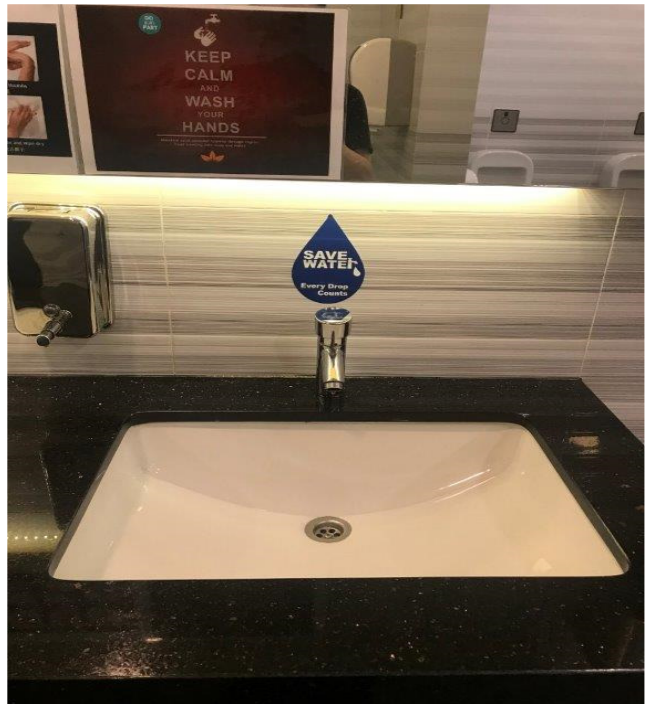
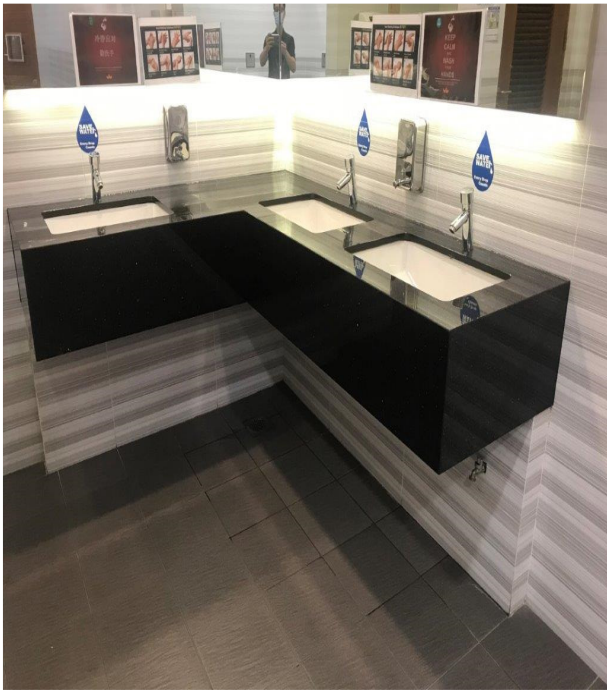
Admin Block (BAT Singapore)



Engineering Block (BAT Singapore)



Admin Block (BAT Singapore)



Admin Toilet Tap (BAT Singapore)



Water treatment Plant (BAT Singapore)



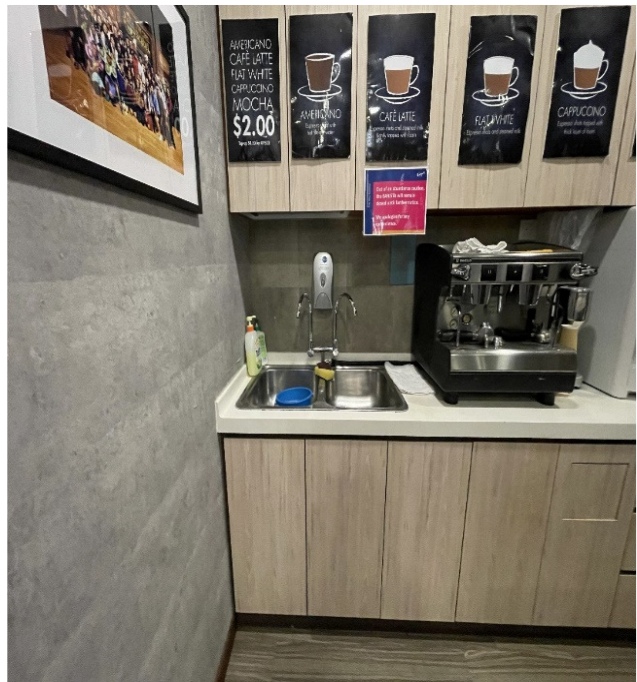
Boiler (PMD Production Plant)



Canteen Area (BAT Singapore)



Canteen Area (BAT Singapore)



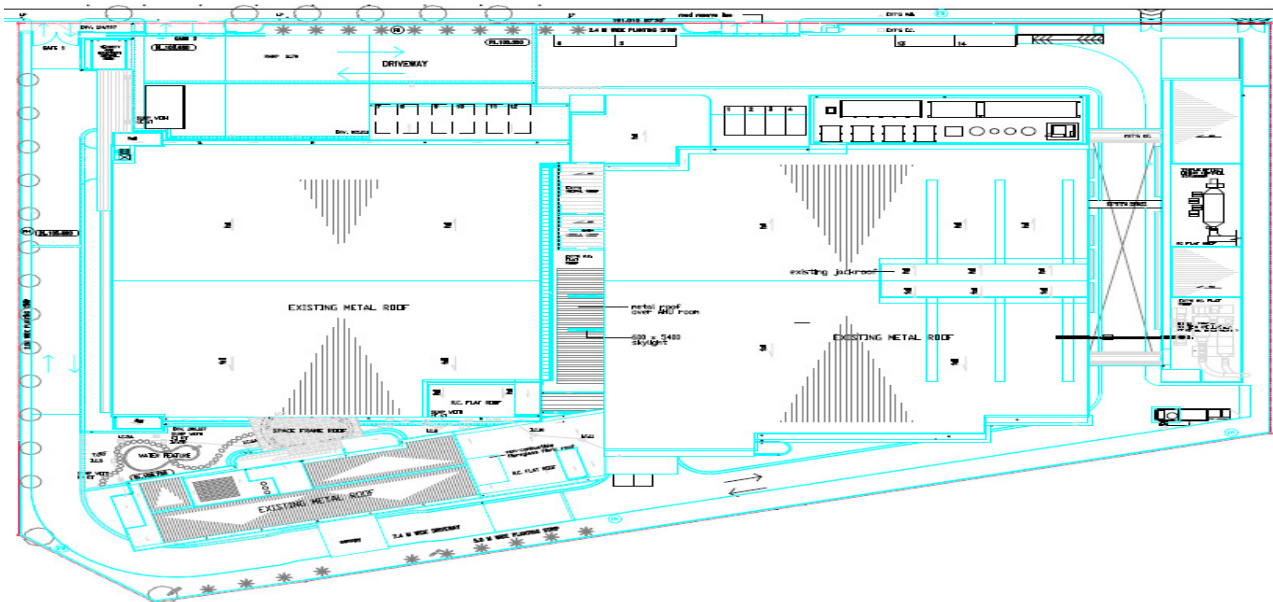


British American Tobacco Singapore Pte Ltd

S/N	Dept	2020 Usage (M ³)	Distribution (Percent)	Process
1	Cooling Tower(Chiller and Ancillary Plant)	25058.00	52.37%	Y
2	Scrubber (Water Treatment Plant)	2448.00	11.55%	Y
3	Boiler (PMD Production)	1421.00	5.53%	Y
4	Canteen	4340.00	9.74%	N
5	Irrigation	293.76	1.48%	Y
6	ADMIN, Warehouse and Production Toilet/Pantry	1905.00	4.68%	N
7	Production	895.64	1.99%	Y
8	Fire Alarm	5513.00	3.45%	Y
9	Chiller Plant and AHU(Air Washer)	230.00	0.68%	N
10	Koi Pond	10.00	0.22%	N
11	General Cleaning	2895.60	8.29%	N
TOTAL		45,010.0	100%	

Process Water (M³) 35,629.4
 Non Process Water (M³) 9,380.6

BAT Singapore Water Distribution Table



BAT Singapore Water Meter Location Layout



Main Water Flow Meter




Glue Room/ Washing Area (BAT Singapore)





Ground water Sampling well at BAT Singapore

Water Efficiency Building



In July 13, we successfully get the WEB (BASIC) certification from PUB. In addition to our certification, we were welcomed as Friend of Water and have the opportunities to interact with others on similar passion on sustaining the water resource.



BAT Singapore Water Efficiency Building certificate



Rain Water Storage Tank at BAT Singapore

TEST REPORT				
(This Report is issued subject to the terms & conditions set out below)				
Your Ref : -		Date : 30/06/2021		
Our Ref : EN8500166849/LWW/1A		Page 1 of 1		
Subject : Sampling and analysis of water sample by Seteco Services Pte Ltd on 22/06/2021 and testing commenced on 22/06/2021.				
Tested For : British American Tobacco Singapore Pte Ltd 15, Senoko Loop, Singapore 758168 Attn : Mr. Ngase Seong Hui				
Sample Reference : Composite sampling from 0900 hrs to 1600 hrs, total of 8 hours at hourly intervals sampling. Analysis was performed based on the composition of all 8 samples.				
Results				
Determination	Units	Test Methods	Last IC (Composite Sample) (22/06/2021) (0900 hrs - 1600 hrs)	Public Sewer
pH value at 25.2°C	-	APHA : Pt 4500-H ⁺ (B)	7.9	6-9
Biochemical Oxygen Demand (BOD ₅)	mg/L	APHA : Pt 5210B	52.9	400
Chemical Oxygen Demand	mgO ₂ /L	APHA : Pt 5220B	128	500
Total Suspended Solids	mg/L	APHA : Pt 2540D	73.0	400
Total Dissolved Solids	mg/L	APHA : Pt 2540C	359	3,000
Detergents (LAS six MBAS)	mg/L	APHA : Pt 5540C	<0.41	30
Grease and Oil (Total)	mg/L	APHA : Pt 5520B	<10 ¹	-

Remarks:
 1. APHA is a Standard Method for the Determination of Water and Wastewater (APHA 23rd Edition : 2017).
 2. † = Not Detectable (The reported value are less than †) (the detection limits of the test methods).
 3. * = Trade Effluent Regulations for Public Sewer discharge.

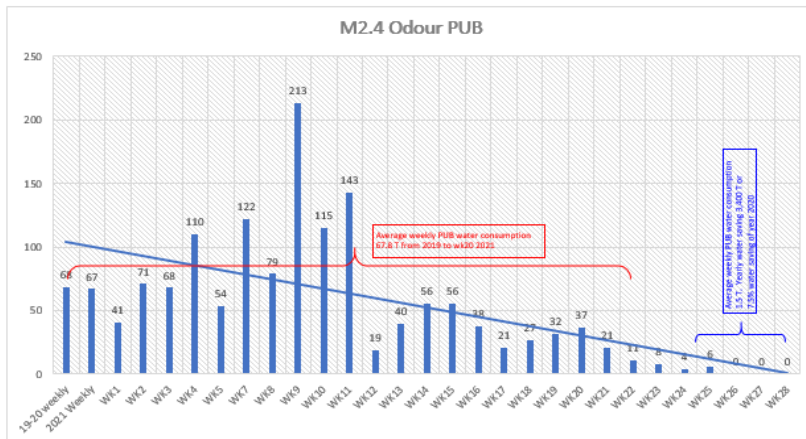
MARVIN MANA GAPUD
 SENIOR CHEMIST
 BIOLOGICAL AND CHEMICAL TECHNOLOGY DIVISION

LEE WEE WAH
 MANAGER

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Water Quality Test Report

PUB water saving – Odour (Jul 21)



- Modify treated water supply and PUB water supply sequence.
- Modify existing treatment plant water pump operation logic.
- Change existing treatment plant operating SOP
- New OPL created for operation sustainable.
- Week 1 – 20 Avg before Initiative = Weekly Avg 67.1 Meter Cube. After Implementation Weekly Avg 4.64. Annual Saving = 3123 Meter Cube

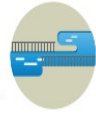
BAT Singapore Water Saving Best Practice

KEY STRATEGIES IN PLACE

Singapore's water policies have evolved over the years as the focus shifted from survival to sustainability. Our holistic approach to water management, however, can be distilled into three key strategies:

1 Collect every drop of water

As a city-state with scarce land, we have to make every drop of rain count. Our separate rainwater and used water infrastructure, good land use planning policies and strong environmental controls also protect the collected rainwater from pollution.



2 Reuse water endlessly

Water can always be reclaimed and retreated so it can be used again. PUB is a world leader in this. Recycling water is the most sustainable and cost-effective way to increase our water supply, and it also does so exponentially.



3 Desalinate more seawater

As an island surrounded by the sea, desalination is a natural option for Singapore, especially when membrane technology has made it economically viable. We will continue investing in research and technology to find better and less expensive ways of desalting seawater.

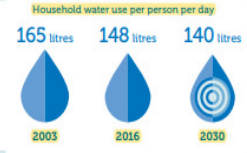


- To increase the recycling rate, we will:
 - Further close the water loop by reclaiming used water from industrial sources for non-potable use. Such water is now treated and discharged to the sea.
 - Increase water recovery from water reclamation and NEWater treatment. The NEWater process currently turns 75% of feed water into NEWater.
 - Reduce losses from PUB's supply by encouraging seafront companies on Jurong Island to use seawater for cooling processes, instead of freshwater.

MANAGING WATER DEMAND

Singaporeans are clearly up for the challenge: between 2003 and 2016, households cut their water use per person per day from 165 litres to 148 litres. Our long term goal is 140 litres by 2030.

PUB works with communities to improve their water consumption habits. We adopt a multi-pronged approach: pricing water to reflect its scarcity value, mandating water efficiency standards, and encouraging water conservation practices.



PRICING

We have priced water to encourage people not to waste it. The price not only reflects the full cost of its production and supply, but also includes a Water Conservation Tax to underline the message that every drop of water is precious and everyone must help to conserve this resource.



SETTING THE RIGHT PRICE

In Singapore, water is priced to reflect its scarcity value, given our constrained circumstances. The price takes into account the entire national water system's costs, including those of rainwater collection, reservoir management, NEWater production, desalination, raw water treatment, the island-wide network of pipes to distribute the treated water and the extensive sewers to collect used water so it can be recycled and reused. The price of potable water also reflects the higher costs of producing water from the next available sources, specifically NEWater and desalinated water. Still, the average household's water bill remains a small percentage of its income.

Water Key Strategies in Singapore by PUB

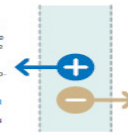
Water Demand Managing in Singapore

5 tips to SAVE ≈ 140 litres a day

- SAVE 45 litres** Showers
 - 10-min shower 90l
 - 5-min shower 45l
- SAVE 11.5 litres** Brushing your teeth
 - Tap running for 2 minutes 12l
 - Using a mug 0.5l
- SAVE 3 litres** Flushing the toilet
 - 4 full flushes per day 16l
 - 2 full flushes, 2 half flushes 15l
- SAVE 28 litres** Dish washing
 - Washing under a running tap for 5 minutes 40l
 - Filled sink/container 12l
- SAVE 52.5 litres** Washing machine
 - 4 ticks

IMPROVING NEWATER RECOVERY

We produce NEWater by putting treated used water through microfiltration, reverse osmosis and ultraviolet light (MF-RO-UV). Our three-stage process is one of the most efficient ways to recycle used water and has a recovery rate of 75%, but the goal is a sustainable 90% rate. Electrolysis reversal reverse osmosis (EDR-RO) could be an alternative. Similar to electro-deionisation, it uses an electric field to remove charged pollutants from used water. PUB, the National University of Singapore (NUS) and United States-based GE Water and Process Technologies are currently piloting an EDR-RO system at the Ulu Pandan Water Reclamation Plant.



AUTOMATION AND ROBOTICS

From sensors to artificial swans, robotics and automated systems can help us minimise human error and redeploy manpower to more productive tasks. In the 1980s, PUB developed a long term computerisation plan for its systems. It has since completed many automation projects, and is working on more. Robots that can cope with different tunnel conditions and an unmanned aerial vehicle (UAV) system are being developed to inspect and maintain the Deep Tunnel Sewerage System. We have also installed about 5,000 sensors and 2D flow gauges in sewer manholes island-wide to detect potential sewer and overflow problems. About 300 sensors help us to monitor the water quality and pressure in the water supply distribution network in real-time. The Smart Water Grid, developed by PUB and local firm Visent,

has been deployed in our potable water networks and PUB is planning to expand the system to cover our NEWater network. The system provides decision support tools that will help in network management, and allow's early detection of network occurrences, enhancing PUB's

operations and the efficiency of water supply to consumers. PUB's other projects include the NUSwain, a robotic swan developed with NUS to monitor our reservoirs' water quality, and UAV's for security surveillance at plants and reservoirs.



The NUSwain helps to monitor water quality in our reservoirs.

Water Saving Tips in Singapore

Improving NeWater Recovery by PUB (Singapore)

3 STAKEHOLDER ANNOUNCEMENT AND CONSULTATION

Following the AWS Certification Requirements, before the remote-site conformity assessment, SGS prepared a stakeholder announcement, which stated BAT Singapore intention to pursue AWS certification. Besides submitting to AWS for publication on the AWS website, the stakeholder announcement was posted to various departments (Department of Public Health & Environment, Community Coordinator etc. to participate in stakeholders' meeting.

[http:// AWS-000399-BAT-Singapore-2021-Stakeholder-Announcement.pdf \(a4ws.org\)](http://AWS-000399-BAT-Singapore-2021-Stakeholder-Announcement.pdf (a4ws.org))



PUBLIC STAKEHOLDER ANNOUNCEMENT

British American Tobacco (BAT) is seeking initial certification against the Alliance for Water Stewardship Standard (AWS) V2.0 for the following site:

Site Name:	BAT Singapore
Site Address:	15 Senoko Loop, Singapore, 758168
GPS Site Coordinates:	1.457497, 103.805866
Site Country:	Singapore
AWS Reference No.	AWS-000399
Audit Date:	30 November 2021
Audit Format:	Remote
Audit Level:	Core
Audit Scope:	Single Site
Audit Type:	Initial Certification Audit

An audit is scheduled on **13 October 2021**. This audit is to be conducted **remotely** due to Covid-19 and in accordance with AWS Policy (<https://a4ws.org/covid19-update/>)

In line with the AWS Certification Requirements, the stakeholders are invited to provide their comments on the site undergoing an AWS Audit.

Members of the public may submit comments **up to 15 December 2021**. Alternatively, if you would like to speak with the Audit Team, please contact the Lead Auditor to arrange an interview via video or phone.

TO PROVIDE COMMENTS:

To arrange an interview and/or submit written comments, please contact the Lead Auditor. You can submit your comments by:

- Via remote interview, and/or
- In writing by email.

Lead Auditor name:	Ali Hashim
Name of Audit Company:	SGS
Lead Auditor email:	ali.hashim@sgs.com
Lead Auditor telephone:	+92 321 646 1538

SPECIAL NOTE:

The general public and stakeholders may also contact the Alliance for Water Stewardship (AWS) directly with questions in accordance with the [AWS Comments, Complaints and Appeals Procedures](#). website: a4ws.org email: assurance@a4ws.org

Stakeholder Announcement Template 20210903

Image 3.1
Information Disclosure posted to various Departments

During the conformity assessment, BAT Singapore held a stakeholder consultation meeting.
Table 3.1 Personnel Interviewed during Stakeholder Consultation Meeting.

Organization		Personnel Interviewed
District Representative	External Authorities	Lai Ming Wei
Environmental & Safety Manager	External Authorities	Peter Ding
Operations Manager	External Authorities	Ching Yew Ming
Outlet Manager	Internal Authorities	Zeith Chen
Chief Security Officer for APRO Asian Protection Pte Ltd	Internal Authorities	William Chen
Senior Operations Manager	Internal Authorities	Grayson Hong
BAT Engineering Department	Internal Authorities	Ngau Seng Hui

According to Lai Ming Wei ,official from District Representative, BAT Singapore should identify potential water saving opportunities and make sure efforts to review on water mapping and potential ways for water reduction and recycling. BAT Singapore should review occasional treatment or highlight if found abnormality in water quality.

Peter Ding, Environmental & Safety Manager, from AMB packaging stated that all water come from PUB and treat it well then disposed off properly in public sewage, also focused on water management during activities in BAT Singapore regarding AWS.

Mr. Ching Yew Ming, Operations Manager, feedback that BAT Singapore provided water from PUB is good for their operations and were updated frequently on BATS chiller and cooling tower water usage and performance. They also updated BAT Singapore on chiller and cooling tower and is glad to contribute in saving water and environment.

According to Zeith Chen, the quality of the drinking water for food preparation have to follow the Environmental Public Health (water Suitable for Drinking) (No.2) Regulations 2019. And show his concern about, if there is disruption to the water supply, operation will seize as food preparation cannot be done.

Mr. William Chen from Chief Security Officer for APRO Asian Protection Pte Ltd, suggested that our site as the site security team, my officers shall be briefed on the procedures and know how to react leakage or wastage of potable water detected. Mr. William Chen emphasis on being the site security team, our responsibility to assist the management to comply to Water Stewardship Standard and the implementation of water stewardship plan.

Grayson Hong, Senior Operations Manager of ISS stated there is no water related challenges.

Ngau Seng Hui, Senior Associate Engineer of ESS Department, reverted that AWS certification has built up his knowledge on maintenance of water related infrastructure, water related cost and increase competency on water efficient management.

According to all stakeholders, BAT Singapore, has paid great attention to its water stewardship.

4 DESCRIPTION OF CATCHMENT

BAT Singapore plant is located in Singapore. Where, water distributed by (Public Utility Board, PUB), site is only utilizing External water source, and ground water is not utilizing by site. BAT Singapore used distributed water and then, PUB is collecting wastewater after treatment by effluent treatment plant.

The catchment area defined by Factory is given in below map.

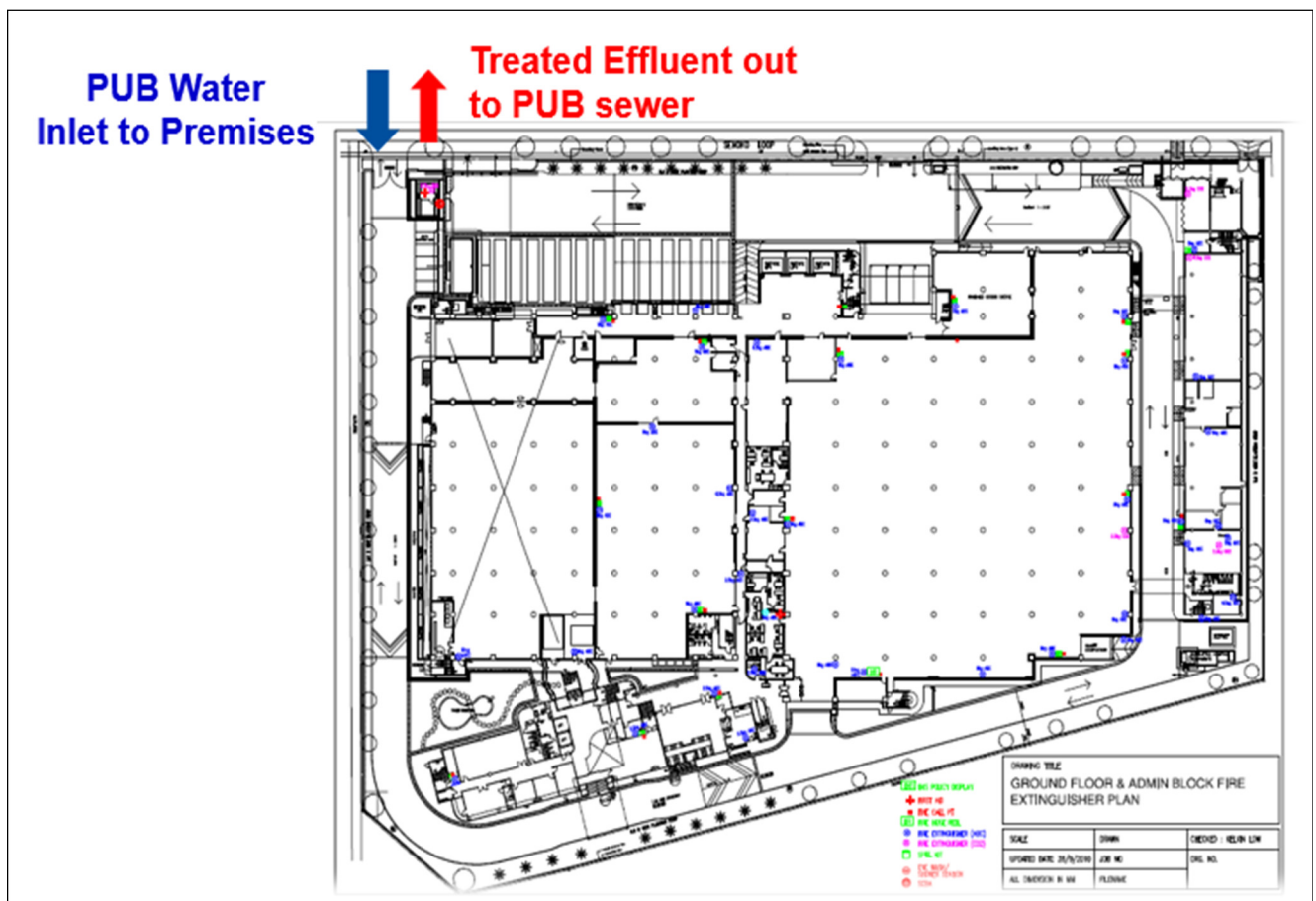


Figure 4.1 Total factory Catchment Area

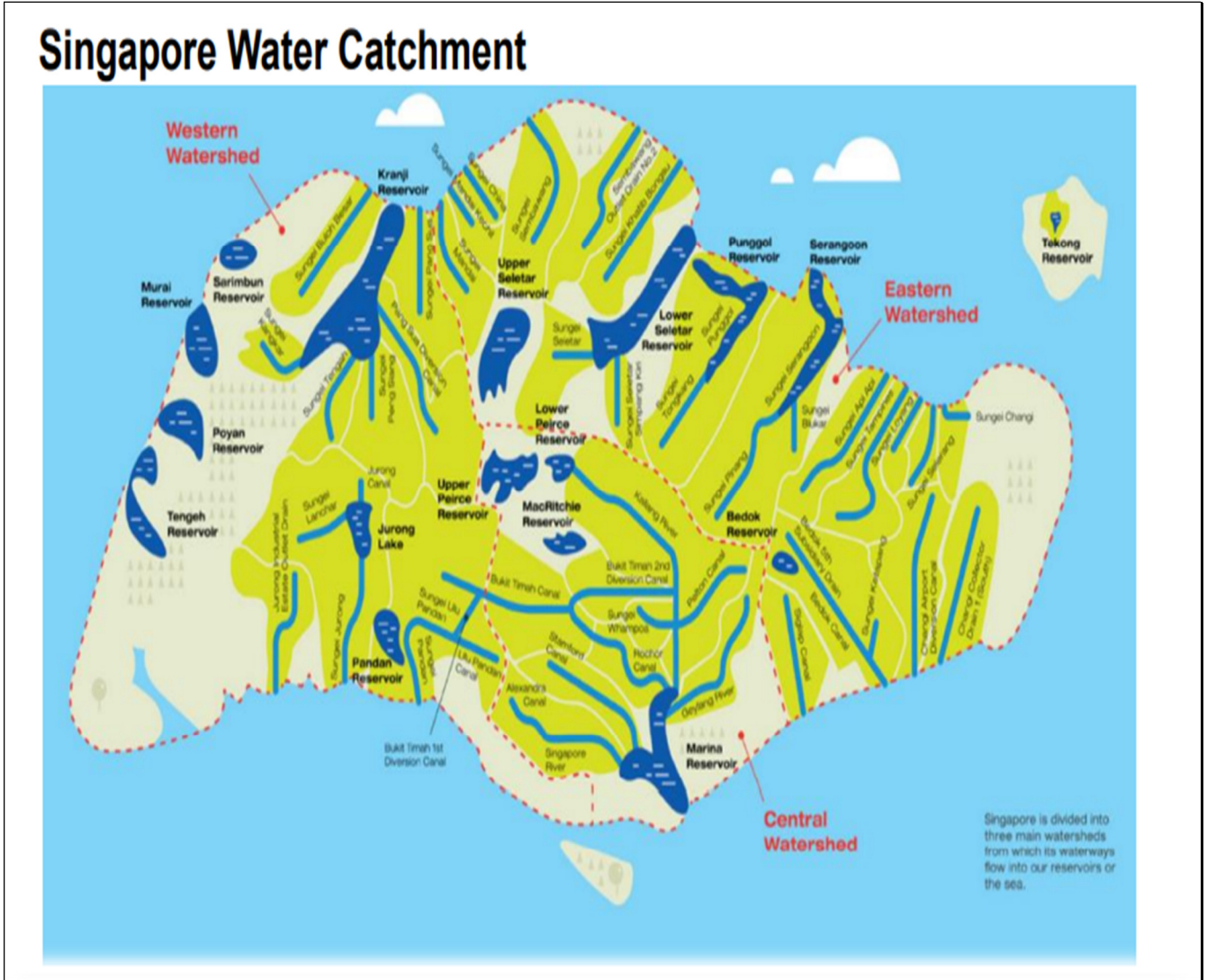


Figure 4.2 Singapore Water Catchment

Singapore Water Loop

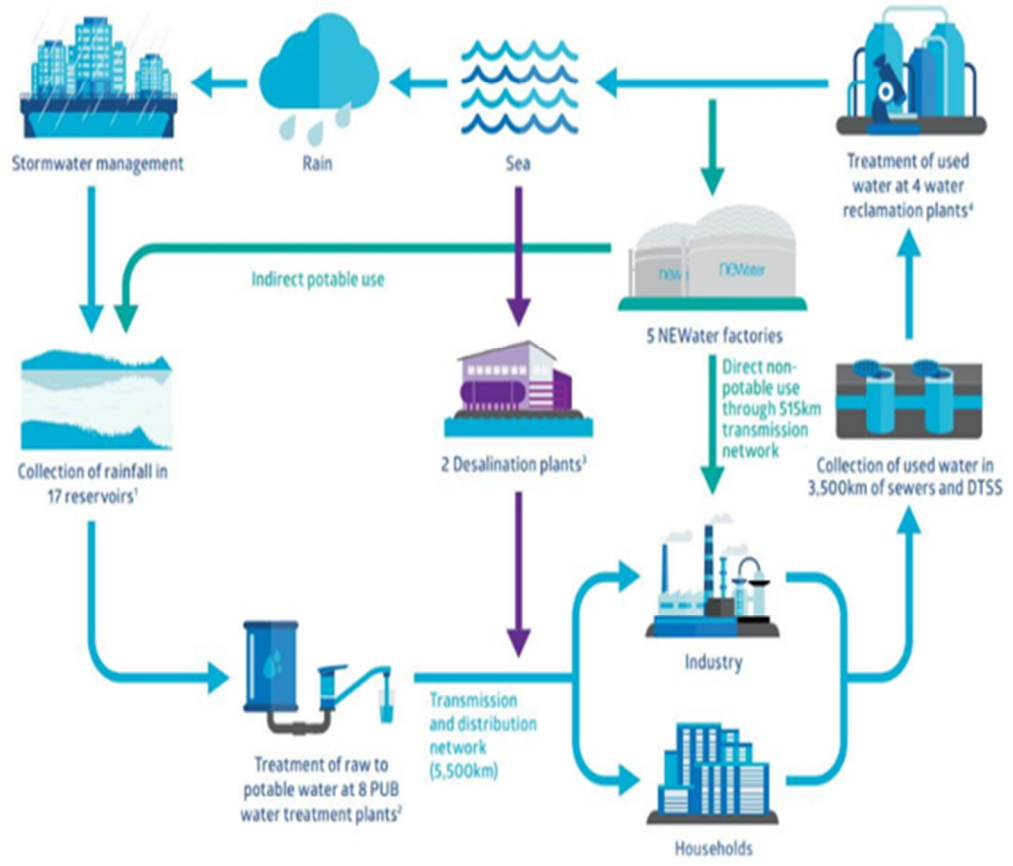


Figure 4.3 Singapore Water Cycle

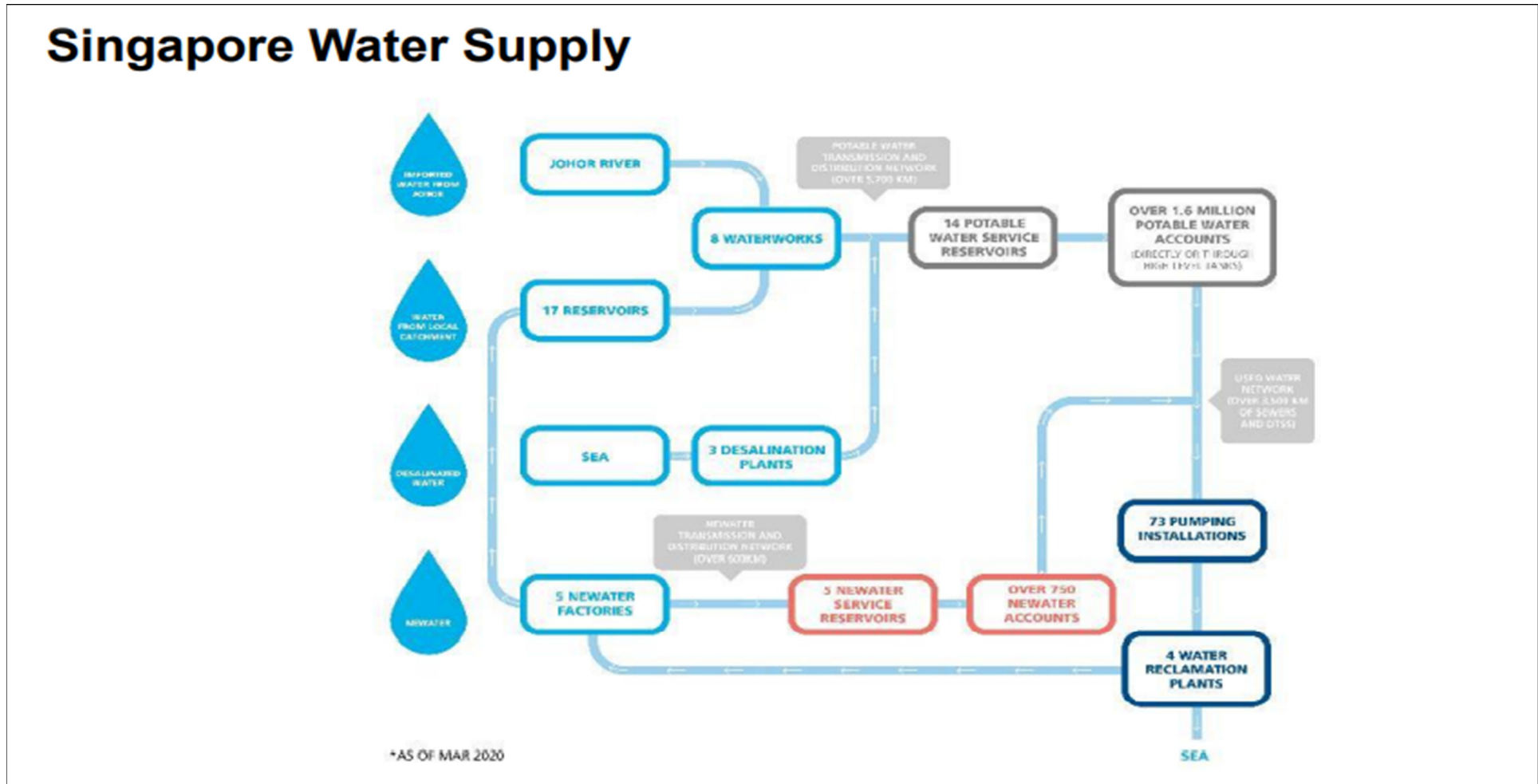


Figure 4.4 Singapore Water Supply Diagram

5 SUMMARY OF SHARED WATER CHALLENGES

BAT Singapore has identified general shared challenges in the catchment and these are listed in Table 5.1.

Table 5.1. Detailed Shared Water Challenges for BAT Singapore

No.	Physical Scope	Stakeholder Groups	Water-Related Challenges (WRCs)	Initiatives to address WRCs	Current degree of influence between site & stakeholder	Potential degree of influence between site & stakeholder	Evidence of stakeholder consultation & communication
1	Site operational boundaries (SOB)	BATS mgt & staff	Efficient use of water in manufacturing operations	Water efficient management practices to ensure water is efficiently consumed in plant	Employees are required to adhere to water efficient management practices	Employees are encouraged to feedback for improvement	Via briefing, meeting, email, notice board, etc. whichever practicable
2	Water-related infrastructures (WRIs) including piping network, owned or managed by the site or its parent organization	BATS mgt & staff	Efficient use of water in WRIs	Preventive maintenance programmes (PMP) to reduce downtime &/or frequency of breakdown of WRIs	ESS department is responsible to plan & implement PMP	WRIs user departments are encouraged to feedback for improvement	Via briefing, meeting, email, notice board, etc. whichever practicable

3	Water sources providing water to the site that are owned or managed by the site or its parent organization	PUB	Maximizing water collection & recycling water & desalinating more seawater	Waste water treatment (WWT) of waste water & trade effluent before discharging them into sewers	ESS department is responsible for WWT Water sources are managed by PUB & BATS has no influence on it beyond its SOB.	Lab discharge results are reviewed for improvement No influence on water sources	Via briefing, meeting, email, notice board, etc. whichever practicable
4	Water service provider (if applicable) & its ultimate water source	PUB	Managing water demand & encouraging water conservation practices	Water efficient management practices* to ensure water is consumed efficiently to reduce water demand & to help preserving water resources *It is based on water efficiency mgt plan submitted to PUB from 2014 to 2020 & we have obtained Water Efficient Building (Basic) since 2013 & we are exempted to submit from 202 as our consumption is less than 60,000 M3 / year.	Employees are required to adhere to water efficient management practices Water sources are managed by PUB & BATS has no influence on it beyond its SOB.	Employees are encouraged to feedback for improvement No influence on water sources	Via briefing, meeting, email, notice board, etc. whichever practicable

5	Discharge points & wastewater service provider & ultimate receiving water body or bodies	BATS	Water discharge meeting trade effluent discharge limit	Monthly checking of waste water discharge to ensure waste water meet discharge limit	ESS department is responsible for monthly checking	Lab discharge results are reviewed for improvement	Via briefing, meeting, email, notice board, etc. whichever practicable
6	Catchment(s) that the site affect(s) and is reliant upon for water	PUB or any other SHs	Preservation of water catchment to collect most rainwater via drains, canals, rivers & ponds	Refer to initiatives stated for item 3 & 5 above to ensure waste water & trade effluent are treated before discharging them into sewers & discharge met its limit to help preserving water catchment of PUB	Refer to current degree of influence stated for item 3 & 5 above	Refer to potential degree of influence stated for item 3 & 5 above	Via briefing, meeting, email, notice board, etc. whichever practicable

6 INDICATORS CHECKLIST

6.1 CORE AWS INDICATORS

As per the requirement set out in the Section 2.11.3.1 of the AWS Certification Requirements, the following table 6.1 presents all the CORE AWS indicators with the relevant reviewed evidence provided by BAT Singapore.

Table 6.1 Evidence Reviewed by SGS Against Each CORE AWS Indicator

Clause	Details	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. 	<p>Site is located in Singapore. Water service provider is identified (site is only utilizing External water source, Public Utility Board, PUB) and ground water is not utilizing by site.</p> <p>PUB drainage network is only receiving body. PUB is collecting wastewater after treatment by effluent treatment plant. Master Layout is available.</p> <p>Water related infrastructure including discharge points and piping network is available. Water service provider and its ultimate water source is identified.</p> <p>Ref: Sect 1.1 Site Physical Scope, & (SG Water Explained, 1.1, 1.5.6, (20200527 Water Road Map)</p>

Clause	Details	Comments/Evidence
1.2	Understand relevant stakeholders, their water-related challenges, and the site's ability to influence beyond its boundaries.	
1.2.1	Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall: <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. 	Stakeholders and their water related challenges are identified. The stakeholders are classified as 1.PUB Singapore national water agency (Government), 2.Nalco water private company, AMB packaging private limited & APRO Asian Protection(security company). (Ref: 1.2.1 Stakeholder Engagement).
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.	Influence between site and stakeholder is identified. (Ref: 1.2.1 Stakeholder Engagement). Observation # 01: It will be interesting on aligned according to stakeholder power, interest, influence and engagement matrix define in AWS guideline. (Ref: 1.2.1 Stakeholder Engagement).
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.	Existing water related incident response plan is identified. (Ref: 1.3.1. Water-related incident response plans).
1.3.2	Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped.	Inlet: Fresh water is provided by PUB (Public Utility Board) Water balance, including inflows, losses, storage and outflows are

Clause	Details	Comments/Evidence
		<p>identified as per documenting evidences. (Ref: 1.3.2, 2019 water balance chart & water data). Rainwater storage pictorial evidence is provided (Ref: 1.2.3 Pictorial evidence) Outlet: one main discharge points as WWTP outlet. Flow meters are installed, and record of November 2020 has been checked.</p> <p>(Ref: 1.3.2. Identify inflows, losses, storage D)</p>
1.3.3	<p>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.</p>	<p>Annual water usage level have been monitored throughout the year Annual variance in water level has been quantified. (Ref: 1.3.3. Site Water Balance)</p> <p>There is no extraction rate the site can draw water from PUB as the water supply is constant through the year. A condition where peak demand matches or exceeds what is available never exist in Singapore.</p> <p>The water supply system from PUB can meet our water higher demand rates without negative impacts on the natural environment or other water users.</p> <p>Observation # 02: As per water balance equation, change in storage volume is not identified, it would be recomendable to include it (Ref: 1.3.3. Site Water Balance)</p>
1.3.4	<p>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</p>	<p>Water quality of the sites water sources and effluent have been monitored reports are available. (Ref: 1.3.4. Site Water Quality and sources of pollution.) Singapore's tap water quality is well within the Singapore Environmental Public Health (Water Suitable for Drinking) (No.2)</p>

Clause	Details	Comments/Evidence
	appropriate, seasonal, high and low variances shall be quantified.	<p>Regulations 2019 and World Health Organisation (WHO) Guidelines for Drinking-water Quality. Our tap water is suitable for drinking directly from the tap without any further filtration.</p> <p>To ensure that our water supply is clean and safe, water samples are regularly collected from reservoirs, waterworks, service reservoirs, and distribution network and analysed at PUB's Water Quality Laboratory.</p> <p>PUB has established a comprehensive and robust sampling and monitoring programme to ensure our water quality from source to tap. Water samples are collected from reservoirs, waterworks and distribution systems and tested at PUB's Water Quality Laboratory. Online sensors also monitor water quality at each stage of the treatment process and service reservoirs.</p> <p>Over 500,000 tests are conducted annually on physical, organic, inorganic, radiological and microbiological parameters.</p> <p>PUB makes continuous effort to maintain drinking water quality at the highest possible level. Our tap water is monitored continuously throughout the year.</p>
1.3.5	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.	<p>Potential pollution sources are identified and mapped.</p> <p>(1.3.5. Sources of contamination)</p>
1.3.6	On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.	<p>On-site Important Water-Related Areas are identified and mapped.</p> <p>(Ref: 1.3.6. On-Site Important Water-Related Areas)</p>
1.3.7	Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.	<p>Water bills are available.</p> <p>(1.3.7 Water Related Cost)</p> <p>mNC # 01: Water treatment cost, water testing cost, amount spent on energy for the movement, heating & colling of water, amount of payroll of</p>

Clause	Details	Comments/Evidence
		water related staff are not identified.
1.3.8	Levels of access and adequacy of WASH at the site shall be identified.	Levels of access and adequacy of WASH at the site are identified. (Ref: 1.3.8. Access to 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 uses of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.	No outsourced services relevant to water are being used. (Ref.: remote interviewed & site visit of local expert)
1.4.2	The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	No outsourced services relevant to water are being used. (Ref.: remote interviewed & site visit of local expert)
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.	Water governance initiatives are identified. (Ref: 1.5.1 water Governance)
1.5.2	Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.	All legal and regulatory requirement have been identified and concerned department have been recognized. (Ref. 3.2.1 legal compliance- 2020 legal register and 1.3.7 Water Bill Jan19 to Dec19)

Clause	Details	Comments/Evidence
1.5.3	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.	<p>Catchment water balance and scarcity have been quantified.</p> <p>Water demand and supply have been calculated till 2060. In Singapore, water has priced to reflect its scarcity value and given its constrained circumstances. floods.</p> <p>Catchment had endured two record-breaking dry spells from January to March 2014.</p> <p>(Ref :1.1 SG Water Explained, 1.5.3-PUB Our Water Our Future)</p>
1.5.4	Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.	<p>Quality data of provided water is available. All parameters are within compliance limits and reports are satisfactory.</p> <p>(Reference: 1.3.4. Site Water Quality and sources of pollution)</p> <p>mNC # 02: Water-related challenge that would be a threat to good water quality status & seasonal high and low variances are not identified.</p>
1.5.5	Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.	<p>Important water related areas have been identified.</p> <p>(Ref 1.3.2 water balance chart)</p> <p>Important water related area i.e. Koi Pond have been identified. Threats to people or the natural environment, using scientific information and through stakeholder engagement is identified.</p> <p>(Ref: BAT_1.5.5 IWRA Status Assessment Report been observed).</p>
1.5.6	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.	<p>Existing and planned water related infrastructure is identified, but potential exposure to extreme events is not occurred till yet.</p> <p>(Ref: BAT_1.5.6 WRIL+3.8.1 SWRIL)</p>

Clause	Details	Comments/Evidence
1.5.7	The adequacy of available WASH services within the catchment shall be identified.	The adequacy of available WASH services within the catchment has been identified. (Ref: 1.5.7 Pictures Evidence (WASH))
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.	Shared water challenges have been identified and prioritized by Public utility board, PUB. (Ref 1.6.1 PUB Our Water Our Future) (Ref: BAT_1.2.1+1.2.2 +1.6.1+1.6.2 WR Challenges Report)
1.6.2	Initiatives to address shared water challenges shall be identified.	Initiatives to address shared water challenges is identified. (Ref 1.6.1 PUB Our Water Our Future) & (BAT_1.2.1+1.2.2 +1.6.1+1.6.2 WR Challenges Report)
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.	Water risks faced by the site is identified, and prioritized, including likelihood and severity of impact. (Ref: BAT_1.7.1+1.7.2 Water Risk & Opportunity Assessment Reports) Observation # 03: It would be advisable to include potential costs and time frame in the ref. (Ref: BAT_1.7.1+1.7.2 Water Risk & Opportunity Assessment Reports).
1.7.2	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.	Water related opportunities, potential saving and business opportunities is identified.

Clause	Details	Comments/Evidence
		(Ref: BAT_1.7.1+1.7.2 Water Risk & Opportunity Assessment Reports)
1.8	Understand best practice towards achieving AWS local/catchment, regional, or national relevance.	outcomes: Determining sectoral best practices having a
1.8.1	Relevant catchment best practice for water governance shall be identified.	Relevant catchment best practice for water governance is identified. (Ref: 1.8 Best practice towards achieving AWS outcomes)
1.8.2	Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.	Site has reduced its water consumption area includes (by using efficient basin tap, sink/kitchen tap, shower tap, wash area and urinal). (Ref.: Pictorial evidence, 1.5.7 Pictures Evidence (WASH),1.8.2 - 2013 WE building), (Ref: 1.8 Best practice towards achieving AWS outcomes)
1.8.3	Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	Relevant sector and/or catchment best practice for water quality is identified. (Ref: 1.3.4. Site Water Quality and sources of pollution) (Ref: 1.8 Best practice towards achieving AWS outcomes)
1.8.4	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	Relevant catchment best practice for site maintenance of Important Water-Related areas has been identified. (Ref : 1.5.3,1.4.1 & 1.6.1 PUB Our Water Our Future)
1.8.5	Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.	Relevant sector best practice for site provision of equitable and adequate WASH services have been identified. (Ref: 1.5.7 Pictorial evidence & 1.5.3,1.4.1 & 1.6.1 PUBOurWaterOurFuture)

Clause	Details	Comments/Evidence
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	A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments: <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. 	Signed and publicly disclosed site statement is available and displayed. (Ref: 2.1.1 Signed AWS Policy.)
2.2	Develop and document a process to achieve and maintain legal and regulatory compliance.	
2.2.1	The system to maintain compliance obligations for water and wastewater management shall be identified, including: <ul style="list-style-type: none"> - Identification of responsible persons/positions within facility organizational structure - Process for submissions to regulatory agencies. 	The system to maintain compliance obligation has been identified. (Ref: Sect 2.2 Document Process & Legal)
2.3	Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.	
2.3.1	A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.	Water stewardship strategy is identified with mission, vision, and goals of the organization. (Ref: Sect 2.3 Strategy & Plan)
2.3.2	A water stewardship plan shall be identified, including for each target:	Water stewardship plan is identified. Water stewardship plan is not available.

Clause	Details	Comments/Evidence
	<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. 	<p>(Ref: BAT_2.3.1+2.3.2_Water Stewardship Plan)</p> <p>Observation # 04: It would be better if the financial budget would be allocated for each action. (Ref: BAT_2.3.1+2.3.2_Water Stewardship Plan).</p>
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.	<p>Water risk mitigation plan is identified.</p> <p>(Ref: BAT_2.4.1 Water Risk Opportunity Action Plans)</p>
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.	<p>Water governance initiative plan is available.</p> <p>(Ref: BAT_3.1.1+3.1.2+1.5.1 WG Initiatives Plan)</p> <p>mNC # 03 : The organization should describe how it has supported or contributed to good catchment governance. For example, it may have engaged with relevant authorities to express its support for improved water governance and water management policies.</p>
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.	<p>There is no indigenous people & Water rights in BAT Singapore local context.</p> <p>(Ref: BAT_3.1.1+3.1.2+1.5.1 WG Initiatives Plan, Site visit of Local Expert)</p>

Clause	Details	Comments/Evidence
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.	A process to confirm legal and regulatory compliance is present & implemented. (Ref: 3.2.1 Legal Compliance)
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.	Not applicable in Singapore. (Ref: remote interview/site visit of Local Expert)
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.	Water stewardship plan is available, objective and targets are identified. (Ref: Sect 3.3 Site Water Balance Targets)
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.	Annual target to improve the site water use efficiency is identified Improved sites water use through water efficiency and less total water use have been implemented. (Ref 2.3.1 Water Efficiency Management Plan Submission) (Ref: Sect 3.3 Site Water Balance Targets & 2013 WE Building)
3.3.3	Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.	Site is using external water source (Public utility board, PUB) and relevant document have been identified. (Ref 2.3.1 Water Efficiency Management Plan Submission, Ref 1.3.7 Water Bill Jan19 to Dec19). (Ref. Site visit of Local Expert)
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.	All targets and their status have been identified in water stewardship plan.

Clause	Details	Comments/Evidence
		(Ref: 3.4 Plan to achieve site water quality targets) (Ref:1.3.4. Site Water Quality and sources of pollution)
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.	Effluent quality reports are available and legally compliant. Site engage vendor to conduct Effluent testing as scheduled. (Ref: 3.4 Plan to achieve site water quality targets & 1.3.4. Site Water Quality and sources of pollution)
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.	Site's Important Water-Related Areas, maintain/enhance target is identified in water stewardship plan, (Ref: 3.5 Plan to maintain or improve Important Water-Related Areas)
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.	Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite is available and verified. (Ref: Sect 3.6 Safe drinking water - effective sanitation & 1.3.8. Access to WASH)
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.	OK and verified on site by Local Expert. Site has WASH assessment record, and not impinging on the human right to safe water and sanitation through their operations. (Ref: BAT_3.6.2 WASH Water Sanitation Hygiene) Assessment Record)
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.	Indirect water use targets set in the water stewardship plan but indirect water use is negligible. (Ref: 3.7 Plan to maintain or improve indirect water use within the catchment)

Clause	Details	Comments/Evidence
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.	Evidence is available for engagement of suppliers and services providers related to in direct water usage. (Ref: BAT_3.7.2 Water Stewardship Plan)
3.8	Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.	
3.8.1	Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.	Evidence of engagement, and the key messages relayed with confirmation of receipt, is available (Ref: BAT_3.8.1 Evidence of engagement)
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.	Water governance is identified. IA & Management review of water governance initiative & stewardship programs base on AWS standard identified. (Ref: BAT_3.9.1 to 3.9.5 Best Practice Plan).
3.9.2	Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.	Water balance target is identified, and their action towards achieving is water monitoring & water balance chart. Flow meters are installed. (Ref: BAT_3.9.1 to 3.9.5 Best Practise Plan. Sect 1.3 Site Water Related data)
3.9.3	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	Actions towards achieving best practice, related to targets in terms of water quality is implemented. (Ref: 1.3.4. Site Water Quality and sources of pollution)
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.	Koi Pond cleaning schedule is available. (Ref: 3.5 Plan to maintain or improve Important Water-Related Areas. (Ref: Sect 3.9 Continual Improvement)

Clause	Details	Comments/Evidence
		mNC# 04: Other evidences for implementation of Site maintenance of important water related area are not provided
3.9.5	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	Actions towards achieving best practice related to targets in terms of WASH is implemented. (Ref: Sect 3.9 Continual Improvement & Ref: BAT_3.6.2 WASH (Water Sanitation Hygiene) Assessment Record)
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.	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes is evaluated. (Ref: Sect 4.1 Site Performance) Observation # 05: It will be interesting to describe in a better way on how it has contributed to achieving the five AWS outcomes. (Ref: Sect 4.1 Site Performance).
4.1.2	Value creation resulting from the water stewardship plan shall be evaluated.	Only one slide of total saving(power) is available. (Ref: Sect 4.1 Site Performance) mNC# 05: Value creation resulting from the water stewardship plan is not evaluated as per AWS standard.
4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified.	Shared value benefits in the catchment is identified. (Ref: Sect 4.1 Site Performance)
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.	

Clause	Details	Comments/Evidence
4.2.1	A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.	No such incident occurred.
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.	<p>Consultation efforts with stakeholder (PUB) and water stewardship performance is identified. (Ref: Sect 4.3 Stakeholder Consultation)</p> <p>Observation # 06: Consultation on performance of only one stakeholder (PUB) is identified. Site must engage stakeholders at least once every year. (Ref: Sect 4.3 Stakeholder Consultation).</p>
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.	<p>The site's water stewardship plan modified and adapted to incorporate relevant information and lessons learned from the evaluations in this step and these changes are not identified. (Ref: Sect 4.4 Evaluate Plan)</p> <p>Observation # 07: Modification to the water stewardship plan may be influence by a range of reasons, it would be advisable to describe it properly. (Ref: Sect 4.4 Evaluate Plan).</p>
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	BAT Singapore report to BAT HQ Group and they will report as at

Clause	Details	Comments/Evidence
	positions of those accountable for compliance with water-related laws and regulations shall be disclosed.	group level and publish in DJSI. Positions of accountable for Compliance with Water-Related Laws & Regulations is EHS Manager
5.2	Communicate the water stewardship plan with relevant stakeholders.	
5.2.1	The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.	The main stakeholder in AWS implementation is PUB as they are water source, water service provider & receiving water bodies. Observation # 08: There is little consultation or engagement with PUB through email & Web link is identified. It's recommendable to pay attention on it.
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.	Increase the amount of water recycled to 35% by 2025, and commitment for Alliance for water stewardship is identified in annual report 2020. BAT Singapore report to BAT HQ Group and they will report as at group level and publish in DJSI. mNC# 06: Summary of water stewardship performance is not yet disclosed.
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.	Shared water-related challenges and efforts made to address these challenges are disclosed. (Ref: Sect 5.4.1 AWS Disclosure Communication Plan)

Clause	Details	Comments/Evidence
5.4.2	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.	Efforts made by the site to engage stakeholders and coordinate were done. (Ref: Sect 5.4.1 AWS Disclosure Communication Plan)
5.5	Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.	
5.5.1	Any site water-related compliance violations and associated corrections shall be disclosed.	No such incident available
5.5.2	Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.	No such incident available
5.5.3	Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.	No such incident available

7 AUDIT FINDINGS

Six minor non-conformities were raised during the remote audit process. They were considered partially meeting the AWS Core criterion requirement, and some small adjustments were requested to make to the documentation in order to be considered fully compliant. The following table 7.1 shows the details of the minor non-conformities and required new information.

Table 7.1 Minor Non-Conformities Raised during the AWS Audit Process

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
1	Minor Non-Conformance	01MINCAR	<p>Indicator 1.3.7 Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.</p> <p><i>Water treatment cost, water testing cost, amount spent on energy for the movement, heating & colling of water, amount of payroll of water related staff are not identified.</i></p>	<p>On 11 February 2022, BAT Singapore provided a corrective action plan for 01MINCAR, which consisted of:</p> <p>Root Cause Analysis:</p> <p>A summary of activities that BAT Singapore has worked on was provided during the audit. Auditor pointed out that there should be a summary of the site's annual water related costs revenues regarding to environmnetal and economic values was missing.</p> <p>Corrective Action:</p> <p>Provided the evidence that there is no social, cultural,</p>	REF052: Response to Finding 01MINCAR

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
				<p>environmental, or economic water-related value generated by the site. Because water was provided by PUB (Public Utility Board) government agency.</p> <p>Implementation deadline: 11 February 2022</p> <p>Based on our review, the corrective action plan is acceptable.</p>	
2	Minor Non-Conformance	02MINCAR	<p>Indicator 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.</p> <p><i>Water-related challenge that would be a threat to good water quality status & seasonal high and low variances are not identified.</i></p>	<p>On 11 February 2022, BAT Singapore provided a corrective action plan for 02MINCAR, which consisted of:</p> <p>Root Cause Analysis:</p> <p>Catchment & scarcity stated in Ref :1.1 SG Water Explained, 1.5.3 – PUB Water Our Future which is published by PUB & request for data regarding catchment water balance and seasonal variance detail from PUB were sent & PUB replied that they cannot provide such data due to confidentiality.</p>	REF053: Response to Finding 02MINCAR

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
				<p>Corrective Action:</p> <p>Provided the evidence of communication with PUB for scarcity and seasonal variance details.</p> <p>Implementation deadline: 11 February 2022</p> <p>Based on our review, the corrective action plan is acceptable.</p>	
3	Minor Non-Conformance	03MINCAR	<p>Indicator 3.1.1 Evidence that the site has supported good catchment governance shall be identified.</p> <p><i>The organization should describe how it has supported or contributed to good catchment governance. For example, it may have engaged with relevant authorities to express its support for improved water governance and water management policies.</i></p>	<p>On 11 February 2022, BAT Singapore provided a corrective action plan for 03MINCAR, which consisted of:</p> <p>Root Cause Analysis:</p> <p>The organization was describe the supported or contributed to good catchment governance but evidence was missing.</p> <p>Corrective Action:</p> <p>Provided the evidence of organization was describe the supported or contributed to good catchment governance.</p>	REF054: Response to Finding 03MINCAR

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
				Implementation deadline: 11 February 2022 Based on our review, the corrective action plan is acceptable.	
4	Minor Non-Conformance	04MINCAR	Indicator 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. <i>Other evidences for implementation of Site maintenance of important water related area are not provided.</i>	On 11 February 2022, BAT Singapore provided a corrective action plan for 04MINCAR, which consisted of: Root Cause Analysis: The only Important Water-Related Areas (IWRA) is fish pond in BAT & it is being maintained & recorded in monthly & 6 monthly inspection & no other best practice necessary as it is just a fish pond Corrective Action: Provided the evidence of monthly inspection and Bi-annually maintenance were carried out with documented. Implementation deadline: 11 February 2022 Based on our review, the corrective action plan is	REF055: Response to Finding 04MINCAR

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
				acceptable.	
5	Minor Non-Conformance	05MINCAR	<p>Indicator 4.1.2. Value creation resulting from the water stewardship plan shall be evaluated.</p> <p><i>Value creation resulting from the water stewardship plan is not evaluated as per AWS standard.</i></p>	<p>On 11 February 2022, BAT Singapore provided a corrective action plan for 05MINCAR, which consisted of:</p> <p>Root Cause Analysis:</p> <p>Water Stewardship (WS) knowledge gained from learning & implementing AWS program has given the key personnel involved in this program with the criteria & methodology to apply the AWS 2.0 to establish & implement the Monitoring & Evaluation system to see how we are performing against the WS objectives & to learn from the experience of achieving it.</p> <p>Corrective Action:</p> <p>Built report and share with PUB government agency. Increase competency of ESS personnel through training and awareness.</p> <p>Implementation deadline:</p>	REF056: Response to Finding 05MINCAR

No.	Type	Ref.	Details	Response by BAT Singapore	Relevant References
				Before surveillance Audit. Based on our review, the corrective action plan is acceptable.	
6	Minor Non-Conformance	06MINCAR	<p>Indicator 5.3.1 A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.</p> <p><i>Summary of water stewardship performance is not yet disclosed.</i></p>	<p>On 11 February 2022, BAT Singapore provided a corrective action plan for 06MINCAR, which consisted of:</p> <p>Root Cause Analysis:</p> <p>Summary of water stewardship performance was disclose. It is addressed as "BAT report to BAT HQ Group and they will report as at group level and publish in DJSI</p> <p>Corrective Action:</p> <p>Provided the evidence of BAT HQ Group Report that was published in DJSI. (www.bat.com/reporting)</p> <p>Implementation deadline: 11 February 2022</p> <p>Based on our review, the corrective action plan is acceptable.</p>	REF057: Response to Finding 06MINCAR

8 SUMMARY

Based on the review of documents presented by BAT Singapore, the interview with BAT Singapore's managers and employees, the interview with local stakeholders, and the site reconnaissance, BAT Singapore, has paid great attention to its water stewardship. A considerable quantity of effort and work has been put into the preparation for the audit of AWS certification.

Six minor non-conformities were raised during the remote audit process. They were considered partially meeting the AWS Core criterion requirement, and some small adjustments were requested to make to the documentation in order to be considered fully compliant. BAT Singapore, has provided SGS acceptable corrective action plans to address all minor non-conformities. We will further ascertain their compliance to the AWS Standard when performing the surveillance assessment in 2022.

9 OPPORTUNITIES FOR IMPROVEMENT

This is the initial conformity assessment for BAT Singapore, against the AWS Standard, and more attention is paid to the documented plan and implementation to date. Less focus was placed on the evaluation of BAT Singapore's performance against the indicators as this was the first year of operation under the intention of conformity to the AWS Standard. Therefore, it allows for many areas for improvement going forward.

Besides the follow-up of implementation of corrective action plans to address all minor non-conformities, the future audits will additionally evaluate BAT Singapore's performance against the AWS Standard indicators and how this is monitored and presented as compliance. Thus, **SGS recommends** that **BAT Singapore**, develop practicable ways to monitor its performance against the AWS Standard indicators, and keep relevant records in anticipation of future audits. Below are the area for the improvement.

1.2.2 OBS 1: It will be interesting on aligned according to stakeholder power, interest, influence and engagement matrix define in AWS guideline. (Ref: 1.2.1 Stakeholder Engagement).

1.3.3 OBS 2: As per water balance equation, change in storage volume is not identified, it would be recommendable to include it (Ref: 1.3.3. Site Water Balance).

1.7.1 OBS 3: It would be advisable to include potential costs and time frame in the ref. (Ref: BAT_1.7.1+1.7.2 Water Risk & Opportunity Assessment Reports).

2.3.2 OBS 4: It would be better if the financial budget would be allocated for each action. (Ref: BAT_2.3.1+2.3.2_Water Stewardship Plan).

4.1.1. OBS 5: It will be interesting to describe in a better way on how it has contributed to achieving the five AWS outcomes. (Ref: Sect 4.1 Site Performance).

4.3.1 OBS 6: Consultation on performance of only one stakeholder (PUB) is identified. Site must engage stakeholders at least once every year. (Ref: Sect 4.3 Stakeholder Consultation).

4.4.1 OBS 7: Modification to the water stewardship plan may be influence by a range of reasons, it would be advisable to describe it properly. (Ref: Sect 4.4 Evaluate Plan).

5.2.1 OBS 8: There is little consultation or engagement with PUB through email & Web link is identified. It's recommendable to pay attention on it.

10 CONCLUSIONS AND RECOMMENDATIONS

The organization has demonstrated effective involve of its management system and is capable of achieving its policy objectives, as well as the intended results of the respective management system.

Given the evidence review and the virtual site visit inspections performed, SGS recommends that, based on the results of this audit, **BAT Singapore (AWS-000399)** is awarded AWS Core Certification with yearly surveillance audits.

11 REFERENCES

REF001: Physical Scope

REF002: SG Water Explained & Water Road Map

REF003: Stakeholder Engagement

REF004: Water-related Incident Response Plans

REF005: 2019 Water Balance Chart & Water Data

REF006: Identify inflows, losses, storage D

REF007: Site Water Balance

REF008: Site Water Quality and Sources of Pollution

REF009: Sources of Contamination

REF010: On-Site Important Water-Related Areas

REF011: Water Related Cost

REF012: Access to WASH

REF013: Remote Interviewed & Site visit of Local Expert

REF014: Water Governance

REF015: Lgal Compliance- 2020 Legal Register & Water Bill Jan19 to Dec19

REF016: SG Water Explained & PUB Our Water Our Future

REF017: Site Water Quality and Sources of Pollution

REF018: Water Balance Chart

REF019: IWRA Status Assessment Report

REF020: WRIL+ SWRIL Document

REF021: Pictures Evidence WASH

REF022: WR Challenges Report

REF023 Water Risk & Opportunity Assessment Reports

REF024 Best Practice towards Achieving AWS Outcomes

REF025: WE Building

REF026: Signed AWS Policy

REF027: Document Process & Legal

REF028: Strategy & Plan

REF029: Water Stewardship Plan

REF030: Water Risk Opportunity Action Plans

REF031: WG Initiatives Plan
REF032: Legal Compliance
REF033: Site Water Balance Targets
REF034: Water Efficiency Management Plan Submission
REF035: Plan to Achieve site Water Quality Targets
REF036: Site Water Quality and Sources of Pollution
REF037: Safe drinking water - effective sanitation
REF038: Access to WASH
REF039: WASH Water Sanitation Hygiene Assessment Record
REF040: Plan to maintain or Improve indirect Water use within the Catchment
REF041: Best Practice Plan
REF042: Site Water Related data
REF043: Plan to Maintain or Improve Important Water-Related Areas
REF044: Continual Improvement
REF045: Site Performance
REF046: Stakeholder Consultation
REF047: Evaluate Plan
REF048: Water Stewardship Plan
REF049: WRIL & SWRIL
REF050: BAT AWS & Environmental HQ Report
REF051: Justification Paper to PUB to request for water info for AWS
REF052: Water Related Cost
REF053: SG Water Explained, 1.5.3-PUB Our Water Our Future
REF054: Site Water Quality and sources of pollution
REF055: WG Initiatives Plan
REF056: Plan to maintain or improve Important Water-Related Areas & Continual Improvement
REF057: Site Performance
REF058: BAT HQ Report