Alliance for Water Stewardship

Audit Report - MillerCoors Millwaukee Brewery

The AWS International Water Stewardship Standard, Version 1.0, April 8th, 2014

Report Issued on: April 11, 2018
Report Finalized: April 27, 2018

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Introduction to the Alliance for Water Stewardship
The AWS Standard ("the Standard") is intended to drive water stewardship, which is defined as the use of water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions. Good water stewards understand their own water use, catchment context and shared concerns in terms of water governance, water balance, water quality and Important Water-Related Areas, and then engage in meaningful individual and collective actions that benefit people and nature. The Standard outlines a series of actions, criteria and indicators for how one should manage water at the site level and how water management should be stewarded beyond the boundaries of a site. In this Standard, the "site" refers to the implementing entity that is responsible for fulfilling the criteria. The site includes the facility and the property over which the implementer that is using or managing water (i.e., withdrawing, consuming, diverting, managing, treating and/or discharging water or effluent into the environment) has control.

Assessment Information:	
Client Name	MillerCoors Milwaukee Brewery
AWS Reference Number	AWS-010-INT-CAB-00-01-0009-0011
Client AWS Representative/Group Manager (Role/Name/Contact info)	Joan Giuliani (Environmental Engineer) Lauren Burke (Engineering Intern)
Audit Team (Role/Name)	Lead Auditor: Tavio Benetti
	Auditor: Nate Jacobson
	Technical Expert (offsite): Laura Weintraub
Audit dates (DD-DD Month YYYY)	March 20th, 2018 (Stakeholder Interviews) March 21st & 22nd, 2018 (Onsite Audit)
Audit Location (main site being audited)	4000 West State Street Milwaukee, WI 53208 United States
Date(s) of previous audit (if applicable)	N/A
Findings from previous year	☐ YES, see tab 9
SCS Certificate number (if applicable)	AWS-010-INT-CAB-00-01-0009-0011
Expiry date of previous certificate (if applicable)	

Scope of Audit (check all applicable boxes)	
The AWS International Water Stewardship Standard Version V1.0 April 8th 2014	
Initial audit	☑ YES
Surveillance audit	☐ YES
Re-certification audit	☐ YES
RE-evaluation audit	☐ YES
Single-site audit	☐ YES
Multi-site audit	☐ YES, see tab 3
Group audit	☐ YES, see tab 3
If yes, please description of the group structure and relationships	

Description of Operations
The Miller Coors Milwaukee Brewery is the original Miller Brewery location founded in 1855 by Frederick Miller. The site operations include brewing operations (mashing, lautering, boiling, cooling, fermenting, filtration, aging), bottling, and packaging in addition to corporate offices.

Description of the catchment in which the client operates:
• *The MillerCoors Milwaukee Campus is located adjacent to the Menomonee River. The catchment includes portions of the Menomonee River Basin (upgradient) and the Lake Michigan (downgradient).* ○ *The Menomonee River is approximately 30 miles long, flowing from Waukesha County east into Lake Michigan. It's 140 square mile watershed is home to more than 300,000 people and the valley it forms through downtown Milwaukee is heavily industrialized (swwtwater.org).* ○ *The river originates in the Village of Germantown and the City of Mequon and flows in a southeasterly direction for about 32 miles before it meets the Milwaukee and Kinnickinnic Rivers in the Milwaukee Harbor Estuary. The watershed contains 96 total stream miles and 4,537 wetland acres (WDNR)* • *The upgradient catchment includes the portion of the Menomonee River Basin which is serviced by the Milwaukee Water Works (MWW) (intake) and MMSD Service Area (discharge).* ○ *The majority of the catchment is provided water by the Milwaukee Water Works. Germantown, Brookfield and Elm Grove are included within the catchment, but are not serviced by MWW.* ○ *The MMSD Service Area includes the Combined Sewer District and others which contribute to and withdraw the same water.* • *The downgradient portion of the catchment includes the Inner Harbor, Milwaukee Estuary and the Outer Harbor.* ○ *The Outer Harbor includes the North Water Intake and the South Water Intake.*
Summary of shared water challenges:
Impaired water quality for the Menomonee River *TMDL Limits being enacted on Phosphorous and Chlorine discharge*

Audit Attendance

Guidance:
Record in this section the people attending the different parts of the audit. Tick the parts of the audit attended by each person.

Audit Attendence

		Mark attendance with an 'x' as appropriate			
Attendee Name	**Role/Title**	**Opening meeting**	**Document review**	**Facility Inspection**	**Closing meeting**
Tavio Benetti	Lead Auditor (SCS)	x	x	x	x
Nate Jacobson	Auditor (SCS)	x	x	x	x
Matt Howard	AWS (Observer)	x		x	
Joan Giuliani	Environmental Engineer	x	x	x	x
Lauren Burke	Engineering Intern	x	x	x	x
Audrey Templeton, P.E.	Corporate Enviromental Manager	x			x
Chris Leto	HAZMAT		x		
Eric Tillman	Utilities		x		
Ryan Brown	Technical Services Manager				x
Dan Pearson	FEWER Lead/Sr. Project Engineer		x		

Additional information on audit attendance

Core / Points	Requirement	Indicators	Conforms Yes	Conforms No	Conforms N/A	Objective Evidence Reviewed / Finding	Allocated Points
Step 1: COMMIT - Commit to being a responsible water steward							
Step 1 ensures that there is sufficient leadership support to enact the rest of the criteria within the Standard. This step also relates to commitments to legal/regulatory compliance and rights- related issues, which underpin water stewardship.							
Core	1.1 Establish a leadership commitment on water stewardship: Have the senior-most manager at the site, and if necessary a suitable individual within the corporate head office, sign and publicly disclose a commitment to: ☐ Uphold the AWS water stewardship outcomes (good water governance, sustainable water balance, good water quality status and healthy status of Important Water- Related Areas); ☐ Engage stakeholders in an open and transparent manner; ☐ Strive to comply with legal and regulatory requirements ☐ Respect water-related rights, including ensuring appropriate access to safe water, sanitation and hygiene for all workers in all premises under the site's control; ☐ Support and coordinate with public sector agencies in the implementation of plans and policies, including working together towards meeting the human right to water and sanitation. ☐ Continually improve and adapt the site's water stewardship actions and plans; ☐ Maintain the organizational capacity necessary to successfully implement the AWS Standard, including ensuring that staff have the time and resources necessary to undertake the implementation; ☐ Support water-related national and international treaties; ☐ Disclose material on water-related information to relevant audiences.	1.1.1 Signed and publicly disclosed statement that explicitly covers all requirements (see details in Criterion 1.1).		No		1.1.1 Reviewed document titled, "Milwaukee Brewery MillerCoors AWS Commitment Statement" signed by VP of Milwaukee Valley Operations. Commitment statement includes all requirements of the AWS to be a responsible water steward. **MINOR NC Commitment is not currently publicly available & required to be signed by senior management (currently signed by management who has since left company)**	
Core	1.2 Develop a water stewardship policy: Develop an internally agreed-upon and communicated and publicly available water stewardship policy that references the concept of water stewardship (as informed by the AWS Standard, outcomes and criteria).	1.2.1 Publicly available policy that meets all requirements (see Guidance)	Yes			1.2.1 Reviewed Molson Coors 2025 Targets: Raising the Bar on Beer found https://www.molsoncoors.com/en/sustainability/overview/our-2025-targets. The document provides a corporate wide goal for water intensity reductions of 22% across the organization by 2025 to 2.8 hL/hL water to beer ratio. This long-term corporate policy goal was found to serve as the foundation for specific water intensity targets assigned to each year with stepped targets each year to ensure that the ultimate goal is achieved across the organization.	
Step 2: GATHER AND UNDERSTAND – Gather data to understand shared water challenges and water related							
Step 2 ensures that the site gathers data on its water use and its catchment context and that the site employs these data to understand its shared water challenges as well as its contributions (both negative and positive) to these challenges and to water-related risks, impacts and opportunities. This information also informs the development of the site's water							
Core	2.1 Define the physical scope Identify the site's operational boundaries, the sources the site draws its water from, the locations where the site returns its discharge to, and the catchment(s) that the site affect(s) and is reliant upon.	2.1.1 Documentation or map of the site's boundaries 2.1.2 Names and location of water sources, including both water service provider (if applicable) and ultimate source water 2.1.3 Names and location of effluent discharge points, including both water service provider (if applicable) and ultimate receiving water body 2.1.4 Geographical description or map of the catchment(s)	Yes			2.1.1 A site map was reviewed. The map includes the layout and descriptions of the buildings. Additional site maps are included with city water meter numbers and storm/river outfalls. 2.1.2 A list of water sources was provided. MillerCoors receives water from the local water service provider, Milwaukee Water Works, which draws from Lake Michigan at Water Intake North (334) and Water Intake South (335). 2.1.3 A list of immediate and ultimate receiving water bodies was provided. Maps were also provided which include locations, size, and type of all outfalls and the drainage area that flows to each outfall. MillerCoors discharges to sanitary, process, and combined storm to the Milwaukee Metropolitan Sewerage District (MMSD), which treats the water at the Jones Island Water Reclamation Facility before discharge to Lake Michigan. Currently there are also direct storm water discharges and non-contact cooling water that is discharged directly to the Menomonee river. 2.1.4 A map of the site catchment was provided. The catchment for MillerCoors contains portions of the Menomonee River Basin (upgradient) and Lake Michigan (downgradient). The Menomonee watershed was defined as 218 km2. A portion of Lake Michigan was also included in the catchment which includes where the Menomonee drains into Lake Michigan along with the Jones Island Water Reclamation Facility.	
Core	2.2 Identify stakeholders, their water- related challenges and the site's sphere of influence Identify stakeholders, document their water-related challenges and explain how the stakeholders are within the site's sphere of influence.	2.2.1 List of stakeholders, descriptions of prior engagements and summaries of their water-related challenges 2.2.2 Description of the site's sphere of influence	Yes			2.2.1 A list of stakeholders was provided. The list includes the following information for each stakeholder: name, sector, level of engagement, importance, attitude, actions to implement, and responsibility. Matrices describing the influence and engagement of each stakeholder were also provided. MillerCoors engaged stakeholders in collaboration with Southeastern Wisconsin Watershed Trust (aka Sweetwater) through hosting of their board meeting in the summer of 2017 at the MillerCoors Milwaukee brewery. Notes, attendee lists, and the presentation from the Southeastern Wisconsin Watershed Trust Board meeting are provided. This allowed MillerCoors to present their plan to interested stakeholders and get input on shared water challenges. A summary of feedback was provided, although this was not documented on a per stakeholder basis. **OBS - Interest and concerns of stakeholders should be documented per individual stakeholder.** 2.2.2 This requirement was met by providing a list of the stakeholders' ability to influence or be influenced by the site, which was provided for Indicator 2.2.1.	
Core	2.3 Gather water-related data for the catchment Gather credible and temporally relevant data on the site's catchment: ☐ Water governance, including catchment plan(s), water- related public policies, major publicly led initiatives under way, relevant goals, and all water-related legal, regulatory requirements; ☐ Water balance for all sources while considering future supply and demand trends; ☐ Water quality for all sources while considering future physical, chemical and biological quality trends; ☐ Important Water-Related Areas, including their identification and current status, while considering future trends; ☐ Infrastructure's current status and exposure to extreme events while considering expected future needs	2.3.1 List of relevant aspects of catchment plan(s), significant publicly led initiatives and/or relevant water related public policy goals for the site 2.3.2 List, and description of relevance, of all applicable water-related legal and regulatory requirements, including legally defined and customary water rights and water-use rights 2.3.3 Catchment water balance by temporally relevant time unit and commentary on future supply and demand trends	Yes			2.3.1 The following relevant plans, initiatives, and goals were listed: -Milwaukee Basin TMDL Study draft report -Discussions with city representatives about Milwaukee being a water-centric city -The 2010 Menomonee River Watershed Restoration Plan, along with a summary of key elements. 2.3.2 A list of international, federal, state, local, and site-specific permits and regulatory requirements was provided. MillerCoors' WPDES permit was provided, which expires 9/30/2020. 2.3.3 MillerCoors analysis of catchment water balance focused on Lake Michigan as the ultimate source and receiving body for site water. Historic Lake Michigan water level data sets were used to justify availability of water in addition to the excess available capacity at the Milwaukee Water Works treatment facility to supply clean water. **OBS - Further analysis of future trends (e.g. climate impacts, withdrawals, potential policy changes, etc.) on Lake Michigan would be beneficial to understanding longer term supply risk**	

		2.3.4 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site's water source(s) by temporally relevant time unit, and commentary on any anticipated future changes in water quality 2.3.5 Documentation identifying Important Water Related Areas, including a description of their current status and commentary on future trends 2.3.6 Existing, publicly available reports or plans that assess water- related infrastructure, preferably with content exploring current and projected sufficiency to meet the needs of water uses in the catchment, and exposure to extreme events				2.3.4 Water quality for the site's water source is based upon links to Milwaukee Water Work's 2016 water quality reports (Quality of Lake Michigan Source Water, Consumer Confidence Report, etc.). The data available through the City of Milwaukee is available annually. 2.3.5 IWRA's within the catchment include Lake Michigan, Lakeshore Park, in addition to a list of 34 natural areas provided including woods, swamps, and parks within the Menomonee River watershed. The status of Lake Michigan and Lakeshore Park but not the remaining 34 identified sites. **OBS -Catchment assessment could benefit from further understanding of the specific water issues at individual IWRA's** 2.3.6 A summary of water-related infrastructure in the catchment was provided, including reports from Milwaukee Water Works regarding Infrastructure improvements and lead contamination prevention (water supply) and Milwaukee Metropolitan Sewer District's 2020 Facilities Plan and deep tunnel system (storm and sanitary sewer). Handling of extreme events included links to details on the MMSD's deep tunnel system for handling excess storm water.	
Core	2.4 Gather water-related data for the site Gather credible and temporally relevant data on the site's: - Governance (including water stewardship and incident response plan); - Water balance (volumetric balance of water inputs and outputs); - Water quality (physical, chemical and biological quality of influent and effluent) and possible sources of water pollution; - Important Water-Related Areas (identification and status); - Water-related costs (including capital investment expenditures, water procurement, water treatment, outsourced water- related services, water- related R&D and water- related energy costs), revenues and shared value creation (including economic value distribution, environmental value and social value).	2.4.1 Copies of existing water stewardship and incident response plans 2.4.2 Site water balance (in Mm3 or m3) by temporally relevant time unit and water-use intensity metric (Mm3 or m3 per unit of production or service) 2.4.3 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site's direct and outsourced water effluent by temporally relevant time unit, and possible pollution sources (if noted) 2.4.4 Inventory of all material water- related chemicals used or stored on- site that are possible causes of water pollution 2.4.5 Documentation identifying existing, or historic, onsite Important Water-Related Areas, including a description of their status 2.4.6 List of annual water-related costs, revenues and description/quantification of social, environmental or economic value generated by the site to the catchment		No		2.4.1 Provided plans include the Spill Prevention Control and Countermeasure (SPCC) Plan, Emergency Response Plan, and Storm Water Pollution Prevention Plan (SWPPP) were provided and/or viewed onsite. MillerCoors maintains a group of ~45 employees with certification to HAZMAT Level A. This team represents first responders onsite in the case of spill or inadvertent release of pollutants. 2.4.2 A spreadsheet detailing the quantified water balance and water intensity (gallons purchased per gallon of beer produced) of the site, by month for 2015, was provided. Tracked volumes of water include: water purchases, rain/snow fall, barrels of beer produced, boiler losses, cooling tower / condenser evaporation, MMSD sewer discharge, storm water discharge. **MINOR NC - The water balance equation currently provided was found to contain an error related to water consumed within the product (e.g. this was based upon diluent and not total water within the final product)** 2.4.3 A spreadsheet detailing the MMSD sewer effluent data, and storm water (to Menomonee) effluent data for 2015-2016 was provided. This includes quarterly sampling at the stormwater outfalls, discharge sent to MMSD and other samples from the plant. A map of potential water pollution sources onsite was provided in indicator 2.4.4. 2.4.4 A map of the locations of Tier II chemicals >10,000 lbs. stored on-site, discussion of key chemicals that can cause water pollution, and a description of the MillerCoors chemical tracking system were provided. **OBS: Industrial hygiene practices related to storage of chemicals could be improved (e.g. ~5 – 5 gallon containers of acid were observed stored directly over a sanitary sewer drain, excess inventory of 250 gallon totes stored outside of secondary containment)** 2.4.5 A list of onsite IWRA's along with their current status is provided. Onsite IWRA's include the Menomonee River, rain garden/bioretention swale, porous pavement with underground storm water cistern, and a green roof installation. 2.4.6 Annual (2015) water-related costs and revenues were provided. The social, environmental, and economic value of the green roof, rain garden, and "water usage bbl. water:bbl beer produced" was qualitatively summarized.	
Core	2.5 Improve the site's understanding of its indirect water use Identify and continually improve the site's understanding of: - Its primary inputs, the water use embedded in the production of those primary inputs and, where their origin can be identified, the status of the waters at the origin of the inputs; - Water used in outsourced water-related services within the catchment.	2.5.1 List of primary inputs with their associated embedded annual (or better) water use and (where known) their country/region/or catchment of origin with its level of water stress 2.5.2 List of outsourced services that consume water or affect water quality and both (A) estimated annual (or better) water withdrawals listed by outsourced services (Mm3 or m3) and (B) appropriate and credibly measured data to represent the physical, chemical and biological status of the outsourced annual (or better) water effluent		No		2.5.1 A list of key ingredients (barley, hops, cans, and bottles) along with a map of the water risk associated with the areas where these ingredients are sourced from was provided. A table summarizing the water consumption for the hops and barley used by MillerCoors was also provided. Onsite discussions determined that liquid adjuncts, bottles, and cans would meet the definition of a primary input. **Minor NC - Not all major product inputs (liquid adjunct, bottles, and cans) were assessed for indirect water usage.** 2.5.2 Outsourced services include laundering of uniforms and purchase of water jugs. The estimated annual water use from these activities was provided. Effluent data was provided for the laundry service. Additional outsourced services such as material transportation were not assessed, however, the guidance is not clear whether this falls within the scope of this credit or not.	
Core	2.6 Understand shared water-related challenges in the catchment Based upon the status of the catchment and stakeholder input, identify and prioritize the shared water- related challenges that affect the site and that affect the social, environmental and/or economic status of the catchment(s). In considering the challenges, the drivers of future trends and how these issues are currently being addressed by public-sector agencies must all be noted.	2.6.1 Prioritized and justified list of shared water challenges that also considers drivers and notes related to public-sector agency efforts	Yes			2.6.1 A prioritized list of shared water challenges in the basin was provided, along with a list of stakeholders, description of the relevance to MillerCoors, rationale for prioritization, and associated public-sector agency initiatives. This list was created based on discussions with stakeholders at the June 2017 stakeholder meeting. Top priorities for the site include TMDL limits for Chloride and Phosphorous.	
Core	2.7 Understand and prioritize the site's water risks and opportunities Based upon the status of the site, existing risk management plans and/or the issues identified in 2.6, assess and prioritize the water risks and opportunities affecting the site.	2.7.1 Prioritized list of water risks facing the site, noting severity of impact and likelihood within a given time frame 2.7.2 Prioritized list of water-related opportunities for the site 2.7.3 Estimate of potential savings/value creation		No		2.7.1 A risk analysis was performed on the shared water challenges that affect the site (Indicator 2.6.1) based on the severity of outcome and probability of occurrence. 2.7.2 A prioritized list of water-related opportunities at the site was provided. 2.7.3 A list of estimated cost savings and value creation for some of Miller Coors opportunities was provided; additional cost/benefit analysis is also contained within the Site Water Stewardship Plan (see 3.2.2) however there are some high priority opportunities identified within 2.7.2 where the savings/value creation was not quantified. **Minor NC - Quantification of value creation and savings was not completed for all for high priority opportunities (e.g. sewer repairs, green infrastructure)**	
Step 3: PLAN – Develop a water stewardship plan							
Step 3 focuses on how a site will improve its performance and the status of its catchment in terms of the AWS water stewardship outcomes. Step 3 needs to explicitly link the information gathered in Step 2 to the performance noted in Step 4 by describing who will be doing what and when. The monitoring methods in Step 5 should also reflect the plan.							
Core	3.1 Develop a system that promotes and evaluates water-related legal compliance: Develop, or refer to, a system that promotes and periodically evaluates compliance with the legal and regulatory requirements identified in Criterion 2.3.	3.1.1 Documented description of system, including the processes to evaluate compliance and the names of those responsible and accountable for legal compliance	Yes			The name, position, and credentials of the person responsible for water related legal compliance was provided. A Water Related Compliance Calendar was provided, which summarizes all relevant legal obligations, when they need to be completed, and the location of the most recent files. MillerCoors also has a monthly environmental call to get updates on new or changing legal obligations.	

Core	3.2 Create a site water stewardship strategy and plan: Develop an internally available water stewardship strategy and plan for the site that addresses its shared water challenges, risks and opportunities identified in Step 2 and that contains the following components (see Guidance for plan template): A strategy that considers the shared water challenges within the catchment, water risks for the site (noting in particular where these are connected to existing public-sector agency catchment goals) and the site's general response (from Criteria 2.6 and 2.7) A plan that contains: A list of targets (based upon Criterion 2.7) to be achieved, including how these will be measured and monitored. Note: where identified as a shared water challenge, these targets must be continually improving for the four water stewardship outcomes until such time as best practice is achieved; A list of annual actions that links to the list of targets; A budget for the proposed actions with cost/benefit financial information (based, in part, upon financial data from 2.7); An associated list indicating who will undertake the actions (i.e., who is responsible for carrying out the work) and who will ensure that the work is completed (i.e., who is accountable for achieving the target), including actions of other actors in the catchment; A brief explanation that speaks to how the proposed actions will affect: (A) water- risk mitigation, (B) water stewardship outcomes and (C) shared water challenges.	3.2.1 Available water stewardship strategy 3.2.2 Available plan that meets all component requirements and addresses site risks, opportunities and stakeholder shared water challenges	Yes			3.2.1 A water stewardship strategy was provided, which outlines site and catchment shared water challenges (quality concerns, TMDL limits, infrastructure, etc.) and how the plan will address those challenges. 3.2.2 A detailed water stewardship plan was created. The plan is broken into goals, targets, metrics, and actions. There are different actions corresponding to different targets, each with their own metrics, budget, desired results, responsible person, timeline, and status.	
Core	3.3 Demonstrate responsiveness and resilience to water-related risks into the site's incident response plan: Add to or modify the site's incident response plan to be both responsive and resilient to the water-related risks facing the site.	3.3.1 A description of the site's efforts to be responsive and resilient to water-related issues and/or risks in an appropriate plan	Yes			3.3.1 Provided plans include the Spill Prevention Control and Countermeasure (SPCC) Plan, Emergency Response Plan, and Storm Water Pollution Prevention Plan (SWPPP) were provided and/or viewed onsite. MillerCoors maintains a group of ~45 employees with certification to HAZMAT Level A. This team represents first responders onsite in the case of spill or inadvertent release of pollutants.	
Core	3.4 Notify the relevant (catchment) authority of the site's water stewardship plans: Contact the appropriate catchment authority/agency (if any) and inform them of the site's plans to contribute to the water stewardship objectives of their catchment plan as identified in Criterion 2.3.	3.4.1 Documented evidence of communicating the site's plan to the relevant catchment authority/agency	Yes			3.4.1 An email provided evidence that MillerCoors reached out to the catchment authority (MMSD) and provided them access to their water stewardship plan. The email also summarized how the plan contributes to MMSD's overall water stewardship goals.	
Step 4: IMPLEMENT – Implement the site's stewardship plan and improve impacts							
Step 4 is intended to ensure that the site is executing the plan outlined in Step 3, mitigating risks and driving actual improvements in performance.							
Core	4.1 Comply with water-related legal and regulatory requirements and respect water rights: Meet all applicable legal and regulatory requirements related to water balance, water management and Important Water-Related Areas as well as water- related rights. As noted in Criteria 1.1 and 3.2, where, through its water use, the site is contributing to an inability to meet the human right to safe drinking water and sanitation, the site must also continually work with relevant public sector agencies until this basic human right to water and sanitation is fulfilled.	4.1.1 Documentation demonstrating compliance 4.1.2 (Catchments with stakeholders who have an unmet human right to safe drinking water and sanitation) Documentation of efforts to work with relevant public sector agencies to fulfil human right to safe drinking water and sanitation.	Yes			4.1.1 A calendar of compliance actions was provided as part of Criterion 3.1, Review of the EPA Echo site for regulatory compliance violations indicates that a "N(RptViol)", RNC/Category II - reportable noncompliance, was assessed in September 2017 related to a temperature exceedance on outfall 004. The discharged temperature was 118.87 F whereas the permitted limit is 89 F. While Q3 and Q4 or 2017 show non-compliances with regards to the Clean Water Act, there have been no quarters in the past 3 years with a Significant Violation. An internal report was provided that details the incident and corrective actions. 4.1.2 Not applicable because there are no unmet human rights regarding safe drinking water and sanitation in the catchment.	
Core	4.2 Maintain or improve site water balance: Meet the site's water balance targets. As noted in Criterion 3.2., where water scarcity is a shared water challenge, the site must also continually decrease its water withdrawals until best practices are met and work with relevant public sector agencies to address the imbalance and shared water challenge. Note: if a site wishes to increase its water use in a water scarce context, the site must cause no overall increase in water scarcity in the catchment and depletion of the site's water source(s) and encourage relevant public sector agencies to address the unlawful water use contributing to the imbalance in the catchment.	4.2.1 Measurement-based evidence showing that targets have been met 4.2.2 (Water scarce catchments only) Evidence of continual decrease or best practice 4.2.3 (Sites wishing to increase withdrawals in water scarce catchments only) Evidence of no net increase in water scarcity		No		4.2.1 A summary of daily and monthly water efficiency data was provided. In 2017, the Milwaukee Brewery failed to meet its stringent water target. Based upon YTD data for 2018 through February, the brewery was not meeting its ambitious monthly targets. **MINOR NC - Tracking of progress indicates targets on water intensity reductions were not achieved in 2017. YTD targets through February 2018 were not being met.** 4.2.2 Noted as being not applicable because the site is not located in a water-scarce catchment. 4.2.3 Noted as being not applicable because the site is not located in a water-scarce catchment.	
Core	4.3 Maintain or improve site water quality: Meet the site's water quality targets. As noted in Criterion 3.2., where water quality stress is a shared water challenge, the site must also continually improve its effluent for the parameters of concern until best practices are met and work with relevant public sector agencies to address the imbalance and shared water challenge. Note: if a site wishes to increase its water use in a water stressed context, the site must cause no overall increase in the degradation of water quality in the catchment and degradation of the site's water source(s) and encourage relevant public sector agencies to address the unlawful water use contributing to the degradation in the catchment.	4.3.1 Measurement-based evidence showing that targets have been met 4.3.2 (Water quality-stressed catchments only) Evidence of continual improvement or best practice 4.3.3 (Sites wishing to increase effluent levels of water quality parameters of concern in water quality-stressed catchments only) Evidence of no net degradation in water quality in the catchment	Yes			4.3.1 Monthly water quality data for the process effluent for 2017 was provided, showing a decrease in BOD and TSS compared to the previous two years. By October 2018, TMDL limits on Chlorine come into effect for the brewery, and later for Phosphorous. 4.3.2 The Menomonee river is considered a water quality stressed catchment for PCBs, Phosphorus, Chlorine, Fecal Coliform, E. coli, and Unspecified metals. TMDL limits are being enacted beginning October 2018. The facility has projects planned to divert non-contact process water to the MMSD system which will help to reduce Phosphorous and Chlorine impacts on the Menomonee and meet the pending TMDL requirements. Additionally, further bioswale projects are planned to help reduce Chloride from road salt applications to parking lots. 4.3.3 Noted as not applicable because there is no plan to increase effluent levels of water quality parameters of concern.	
Core	4.4 Maintain or improve the status of the site's Important Water-Related Areas: Meet the site's targets for Important Water-Related Areas at the site. As noted in Criterion 3.2., where Important Water-Related Area degradation is a shared water challenge, the site must also continually improve its Important Water-Related efforts until best practices are met, and the site must not knowingly cause any further degradation of such areas on site.	4.4.1 Documented evidence showing that targets have been met 4.4.2 (Degraded Important Water- Related Area catchments only) Evidence of continual improvement or best practice	Yes			4.4.1 Photos were provided, showing that porous pavement and underground storage installation in lot 69 was completed. The plan to expand the rain garden was delayed due to historical significance of the Gentleman building, but is expected to be complete by summer of 2018. While the onsite audit was conducted in March and hence green infrastructure had not begun its growing cycle for the year, observations onsite of the green roof and bioswale did not lead to any reason for concern. 4.4.2 Not applicable as the onsite IWRA's were not determined to be applicable.	
Core	4.5 Participate positively in catchment governance: Continually coordinate and cooperate with any relevant catchment management authorities' efforts. As noted in Criterion 3.2, where water governance is a shared water challenge, the site must also continually improve its efforts until best practices are met.	4.5.1 Documented evidence of the site's ongoing efforts to contribute to good catchment governance 4.5.2 (Weak water governance catchments only) Evidence of continual improvement or best practice	Yes			4.5.1 Evidence of contributing to good water governance includes inclusion of an environmental engineer at MillerCoors joining the Southeastern Wisconsin Watershed Trust board of directors. This is a collection of regional stakeholders comprised of government and non-government organizations with a focus on regional water initiatives. 4.5.2 Noted as not applicable because the Menomonee River watershed is not a weak water governance catchment. Based upon stakeholder interviews, there is a very active community of government and non-government entities taking steps to improve water related issues in the area.	
Core	4.6 Maintain or improve indirect water use within the catchment: Contact the site's primary product suppliers and water-related service providers located in the catchment and request that they take actions to help contribute to the desired water stewardship outcomes.	4.6.1 List of suppliers and service providers, along with the actions they have taken as a result of the site's engagement relating to indirect water use	Yes			4.6.1 No primary suppliers are located in our catchment, but information is included for primary inputs throughout the supply chain. Indicator only requires action if suppliers in catchment. Water stewardship plan lacks targets related to indirect water use, which is why specific actions have not been taken for this criterion.	

Core	4.7 Provide access to safe drinking water, adequate sanitation and hygiene awareness (WASH) for workers on- site: Ensure appropriate access to safe water, effective sanitation and protective hygiene for all workers in all premises under the site's control.	4.7.1 List of actions taken to provide workers access to safe water, effective sanitation and protective hygiene (WASH) on-site	Yes			4.7.1 MillerCoors used a self-assessment tool to implement their pledge for access to safe water, sanitation, and hygiene (WASH) at the workplace. Pledged compliance was achieved at the facility. Additionally, hygiene awareness is provided to all employees via annual training.	
Core	4.8 Notify the owners of shared water- related infrastructure of any concerns: Contact the owners of shared water- related infrastructure and actively highlight any concerns the site may have in light of its risks and shared water challenges.	4.8.1 List of individuals contacted and key messages relayed	Yes			4.8.1 MillerCoors notified the City of Milwaukee when a water main broke on campus and Milwaukee Water Works when a leak was suspected	
Step 5: EVALUATE - Evaluate the site's performance							
Step 5 is intended to review performance against the actions taken in Step 4, learn from the outcomes – both intended and unintended – and inform the next iteration of the site's water stewardship plan. The expectation is that such an evaluation takes place at least annually, with more frequent evaluation encouraged as feasible.							
Core	5.1 Evaluate the site's water stewardship performance, risks and benefits in the catchment context: Periodically review the site's performance in light of its actions and targets from its water stewardship plan to evaluate: ☑ General performance in terms of the water stewardship outcomes (considering context and water risks), positive contributions to the catchment, and water-related costs and benefits to the site.	5.1.1 Post-implementation data and narrative discussion of performance and context (including water risk) 5.1.2 Total amount of water-related costs, cost savings and value creation for the site based upon the actions outlined in 3.2 (drawn from data gathered in 2.4.6) 5.1.3 Updated data for indicator 2.4.7 on catchment shared value creation based upon the actions outlined in 3.2	Yes			This indicator will need to be evaluated during the surveillance, such as compliance with the Phosphorous and Chlorine TMDLs, repaired sewer lines were completed by end of last year, and green infrastructure.	
Core	5.2 Evaluate water-related emergency incidents and extreme events: Evaluate impacts of water-related emergency incidents (including extreme events), if any occurred, and determine effectiveness of corrective and preventive measures. Factor lessons learned into updated plan.	5.2.1 Documented evidence (e.g., annual review and proposed measures)	Yes			5.2.1 A list of incidents involving spills or releases during 2017 was provided as EHS alert forms. All but one of the incidents impacted storm drains to the Menomonee River. Each report includes a summary of the incident and initial and planned actions in response.	
Core	5.3 Consult stakeholders on water- related performance: Request input from the site's stakeholders on the site's water stewardship performance and factor the feedback/lessons learned into the updated plan.	5.3.1 Commentary by the identified stakeholders	Yes			Stakeholders within the catchment were contacted via emailed Stakeholder update on 2/19/18. The email was sent to seven representatives, including the Milwaukee Riverkeeper, Milwaukee Water Works, We-Energies, MMSD, WDNR, Fund for Lake MI, and SEWRPC. Response was received by two of the seven, which included SWEET Water and Milwaukee Water Works. SWEET Water's role in the process was to facilitate stakeholder engagement. Milwaukee WW was not engaged in following MillerCoors AWS progress. **OBS: Follow up with key, unresponsive stakeholders to gain some insight on the sites performance.**	
Core	5.4 Update water stewardship and incident response plans: Incorporate the information obtained into the next iteration of the site's water stewardship plan. Note: updating does not apply for initial round of Standard implementation.	5.4.1 Modifications to water stewardship and incident response plans incorporating relevant information	Yes			Related to indicator 3.2.2. The incident response plan was updated for HAZMAT response. The SPCC and SWPPP plans are scheduled for update in 2018. **OBS: Spill Prevention Control Plan and SWPPP are currently currently in place but are not updated to indicate that the 50,000 gallon fuel oil tank is obsolete, empty, and no longer in use.**	
Step 6: COMMUNICATE & DISCLOSE – Communicate about water stewardship and disclose the site's stewardship efforts							
Step 6 is intended to encourage transparency and accountability through communication of performance relative to commitments, policies and plans. Disclosure allows others to make informed decisions on a site's operations and tailor their involvement to suit.							
Core	6.1 Disclose water-related internal governance: Publicly disclose the general governance structure of the site's management, including the names of those accountable for legal compliance with water-related laws and regulations.	6.1.1 Disclosed and publicly available summary of governance at the site, including those accountable for compliance with water-related laws and regulations	Yes			Reviewed AWS Implementation updates, MillerCoors Milwaukee Campus (Stakeholder Update, 2/9/18). Document was emailed by MillerCoors' Environmental & Sustainability Engineer to stakeholders on 2/19/18. Stakeholders included Fund for Lake Michigan, Milwaukee River Keeper, WE Energies, Milwaukee Government, MMSD, SEWRPC, and Wisconsin Government. Document indicated the hierarchy of those specifically related to site level water governance, which included the name and position of Environmental and Sustainability Engineer at the Milwaukee Brewery, which is accountable and responsible for compliance with water laws and regulations. Beyond this position, the Utilities Manager at the Milwaukee Brewery is responsible for all other water related issues as necessary.	
Core	6.2 Disclose annual site water stewardship performance: Disclose the relevant information about the site's annual water stewardship performance, including results against the site's targets.	6.2.1 Disclosed summary of site's water stewardship results	Yes			On 2/19/18 MillerCoors' Environmental & Sustainability Engineer emailed disclosure of their current summary of the site's water stewardship results. The recipients are described in 6.1.1 indicator. The document specifically addressed the results and targets related to the water stewardship plan and shared water challenges, which included water quality in the watershed, deteriorating infrastructure, total water usage and water quality, involvement in water related community projects/community leadership and investment.	
Core	6.3 Disclose efforts to address shared water challenges: Publicly disclose the site's shared water challenges and report on the site's efforts to help address these challenges, including all efforts to engage stakeholders and coordinate and support public-sector agencies.	6.3.1 Disclosed and publicly available description of shared challenges and summary of actions taken to engage stakeholders (including public-sector agencies)	Yes			Reviewed the submitted Water Stewardship Update for Stakeholders and email referenced for indicator 6.1.1 and 6.2.1. Disclosed summary of shared water challenges included in stakeholder update. The email included a list of questions to stakeholders calling for feedback on the level of MillerCoors engagement, stewardship, identifying key stakeholders, and identifying any key areas that should be addressed in the watershed. Additionally, an internal email was sent to staff of the water stewardship plan with indicators for MillerCoors performance goals.	
Core	6.4 Drive 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. Note: any site- based violation that can pose an immediate material threat to human or ecosystem health from use of or exposure to site-related water must be reported immediately to relevant public agencies.	6.4.1 Available list of water-related compliance violations with corresponding corrective actions	Yes			Reviewed environmental violations for Molson Coors and public reports on Milwaukee Brewery found in the US EPA ECHO system. One violation identified 3/17/2015 under the Clean Water Act. The discharge water temperature was above the limit. An investigation was completed. See Indicator 4.1.1 for further review.	
Core	6.5 Increase awareness of water issues within the site: Strive to raise the understanding of the importance of water issues at the site through active communications.	6.5.1 Record of awareness efforts (dates and communication) and, if possible, level of awareness	Yes			MillerCoors conducts annual storm water training. On 3/2/18, there was a training for Spill Prevention Control Countermeasure (SPCC). New employees are provided training on Environmental Stewardship.	

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Audit Non-conformities and Observations

Guidance

Disclaimer: auditing is based on a sampling process of the available information and therefore nonconformities may exist which have not been identified.

Observations are defined as an area of concern regarding a process, document, or activity where there is opportunity for improvement.

Major non-conformity is raised if the issue represents a systematic problem of substantial consequence; the issue is a known and recurring problem that the client has failed to resolve; the issue fundamentally undermines the intent of the AWS Standard; or the nature of the problem may jeopardize the credibility of AWS.
Applicants must close* major NCR within Ninety (90) days of the NCR issue date. Failure to meet this deadline will require another conformity assessment.
Certificate Holders must close* major NCR within Thirty (30) days of the NCR issue date. If the Major NCR is not addressed within 30 days SCS shall suspend or withdraw the certificate and reinstatement shall not occur before another conformity assessment has been successfully completed.

Minor non-conformity: Where the audit team has evaluated an audit finding and determines that the seriousness of the issue does not meet the any of the criteria for Major non-compliance the audit team shall grade the finding as a minor non-conformity.
Applicants must submit an acceptable corrective action plan^ to address all minor non-conformities to be recommended for certification.
Certificate Holders must close minor NCR within Ninety (90) days of the NCR issue date. SCS may agree to an alternative time frame with the client as long as this can be justified and is documented in the NCR report.
If corrective actions are inadequate to resolve a minor non-conformity by the time of the next scheduled audit, SCS shall upgrade the audit finding to a major non- conformity.
If an unusually large number of minor non-conformities are detected during the course of a single audit, the audit team may at their discretion raise a major non-conformity to reflect a systematic failure of the client's management system to deliver conformity with the AWS Standard.

** closed = actioned by the client, corrections & corrective actions verified and closed by the auditor.*
^The corrective action plan shall include an analysis of the root cause of the minor non-conformity; the specific corrective action(s) to address the minor non-conformity; and an appropriate time frame to implement corrective action(s).

NC #	Section #	Minor – Detail on Non Conformance	Due Date (XX calendar Days)	Corrective Action Taken
NC-1	1.1	Commitment is not currently publicly available & required to be signed by senior management (currently signed by management who has since left company)	10-Jul-18	Update commitment with Jon Hussey's signature and post publicly on MillerCoors website
NC-2	2.4.2	The water balance equation currently provided was found to contain an error related to water consumed within the product (e.g. this was based upon diluent and not total water within the final product)	10-Jul-18	Correct formulae in water balance spreadsheet and update with 2017 (most recent) data
NC-3	2.5.1	Not all major product inputs (liquid adjunct, bottles, and cans) were assessed for indirect water usage.	10-Jul-18	Assess indirect water usage for Liquid Adjuncts, Bottles, and Cans, and look into if other inputs need to be assessed per standard requirements
NC-4	2.7.3	Quantification of value creation and savings was not completed for all for high priority opportunities (e.g. sewer repairs, green infrastructure)	10-Jul-18	Quantify savings and value creation for sewer repairs and green infrastructure
NC-5	4.2.1	Tracking of progress indicates targets on water intensity reductions were not achieved in 2017. YTD targets through February 2018 were not being met.	10-Jul-18	Implement identified major water savings projects: Rinser Reclaim on B20 and B52 and CIP Optimization in Brewing (estimated annual savings of 20 Million Gallons of water, with roughly half of those savings realized in 2018). Validation of savings will be done using internal metering data.

OBS #	Section #	Observation – Detail on Opportunity for Improvement	Due Date	Corrective Action Taken
OBS-1	2.2.1	Interest and concerns of stakeholders should be documented per individual stakeholder.	n/a	Efforts will be made to do this going forward

OBS-2	**2.3.3**	**Further analysis of future trends (e.g. climate impacts, withdrawals, potential policy changes, etc.) on Lake Michigan would be beneficial to understanding longer term supply risk**	**n/a**	**This will be explored in the future.**
OBS-3	**2.3.5**	**Catchment assessment could benefit from further understanding of the specific water issues at individual IWRA's**	**n/a**	**Future engagement with stakeholders will include discussion on water issues at individual IWRAs.**
OBS-4	**2.4.4**	**Industrial hygiene practices related to storage of chemicals could be improved (e.g. ~5 – 5 gallon containers of acid were observed stored directly over a sanitary sewer drain, excess inventory of 250 gallon totes stored outside of secondary containment)**	**n/a**	**Will determine an appropriate location for and add containment for acid storage and evaluate if excess totes of chemicals stored on site are necessary.**
OBS-5	**5.4**	**Spill Prevention Control Plan and SWPPP are currently in place but are not updated to indicate that the 50,000 gallon fuel oil tank is obsolete, empty, and no longer in use**	**n/a**	**Currently waiting for quotes to update these plans.**

Certification Decision

Guidance
The recommendation section to be filled out by the auditor with optional comments. The Certification Decision section is to be completed by the SCS's decision-making entity after initial, re-certification and re-evaluation audits. Details of the decision making entity and any observations or further details can be included in the comments field.

Auditor's recommendation for initial, continued or re-certification based on compliance with requirements:	**X**	Initial/Continued Certification **Recommended**
		Initial/Continued Certification **Not Recommended**
Level of certification recommended (if applicable):	**X**	AWS Core
		AWS Gold
		AWS Platinum
Comments (e.g. justification for change in certification level, recommendations for sampling):		

To be completed by the SCS Decision-Making Entity	**SCS Certification Decision:**	**x**	**Approved**
			Denied
	Certification decision by:	**Neil Mendenhall**	
	Technical Review by:	**Neil Mendenhall**	
	Date of decision:	**27 April 2018**	
	Surveillance schedule:	**Next audit is scheduled for** *(include range)* **: Annual**	