



Alcoholic Beverage Producers **Best Management Practices**



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Partners in Clean Water

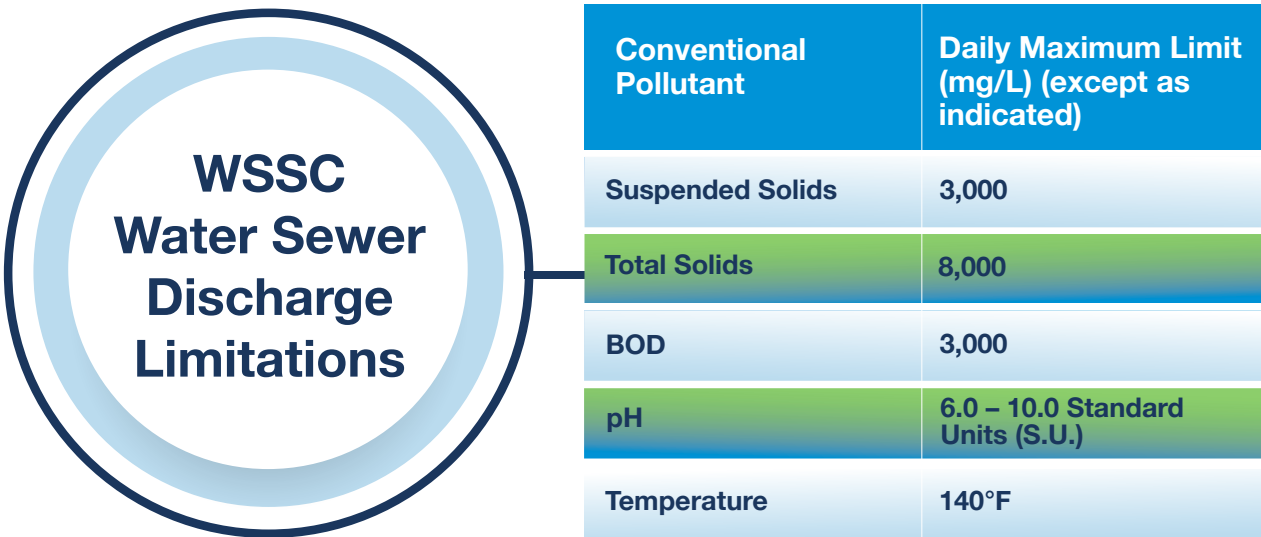
Best Management Practices and practical tips for breweries, distilleries, meaderies, cideries and wineries working together to protect our waterways

WSSC Water is committed to working with alcoholic beverage producers to ensure their non-domestic wastewater is appropriately managed. This helps protect our collection system, our workers, receiving Water Resource Recovery Facilities (WRRFs) and the environment. Alcoholic beverage producers include facilities that manufacture alcohol for public consumption, such as breweries, distilleries, meaderies, cideries and wineries. During manufacturing and cleanup, alcoholic beverage producers might discharge high flows or slug loads as well as pollutants such as biochemical oxygen demand (BOD), solids, extreme pH, high temperatures, elevated nutrient concentrations, and potentially flammable substances in their wastewater. Implementing Best Management Practices (BMPs) can help reduce these concerns and support compliance with WSSC Water’s Plumbing and Fuel Gas Code Section 804 (Prohibited Discharges) www.wsscwater.com/codebooks. However, using BMPs alone may not be enough to meet local pretreatment limits. Key BMPs include solids removal and reuse, pH adjustment, temperature control and spill prevention. These practices help protect local water systems, reduce treatment costs at WRRFs and promote environmental sustainability.

Producers should also properly manage and dispose of any off-spec or expired products that are unsuitable for sale or consumption. These materials should never be discharged to the sanitary sewer. Instead, they must be disposed of in accordance with applicable local, state, and federal regulations, often through a licensed hazardous or industrial waste disposal service. Proper disposal helps protect water quality, maintain regulatory compliance, and support responsible production practices across the alcoholic beverage industry.

WSSC Water Discharge Requirements and Local Limits

As Industrial Users¹, alcoholic beverage producers are required to comply with local wastewater discharge requirements, as set by their local Control Authority, in this case WSSC Water. Temperature and pH requirements apply to all dischargers in WSSC Water’s jurisdiction; however, solids limits may vary based on the specific requirements of the receiving WRRF. For questions, please contact the WSSC Water Industrial Discharge Control Program at 301-206-8841 or, if after hours, the WSSC Water Emergency Call Center at 301-206-4002. WSSC Water local pollutants of concern for alcoholic beverage producers, along with their respective daily limits, include the following parameters:



¹An Industrial User (IU) is defined as any place of business, endeavor, arts, trade or commerce, whether public or private, commercial or charitable, that uses water in a product, process, or any manner that generates wastewater which is a source of indirect discharge.

Solids Reduction

Alcoholic beverage producers generate various solid byproducts during production, including spent grains, fruit waste, yeast, hops, filtration media, additives and packaging residues. These solids can contribute to high-strength BOD in wastewater due to the organic content of alcohol production processes. If not properly managed, these solids can clog building drains, disrupt sewer flow and create challenges at our WRRFs. To minimize solids in wastewater, producers should:

- 1 Install screens, filters or baskets on floor drains to capture solids before they clog building drains.
- 2 Collect and dewater fermentation solids (e.g., spent grains, fruit pulp, trub, yeast) for off-site disposal or beneficial reuse such as composting or animal feed. Excessive spent solids, such as yeast, can lower pH and lead to acidic wastewater.
- 3 Identification and separation (side streaming) of high strength wastes from the wastewater can help reduce solids and BOD in wastewater. Explore opportunities for beneficial reuse of these wastes.
- 4 Be aware that WSSC Water prohibits disposal of solids to our sanitary sewer or at our waste disposal sites without prior written permission.
- 5 If considering land application of fruit or organic waste, obtain the necessary permits from the Maryland Department of the Environment (MDE) or a nutrient management plan from the Maryland Department of Agriculture. Depending on volume and material type, this is often restricted to certain seasons. Alternative storage or disposal methods are necessary during off-periods.
- 6 Regularly inspect and maintain screening equipment and dispose of collected solids in the trash.
- 7 Sweep up solids spills immediately and avoid rinsing solids down the drain.
- 8 Train employees on proper solids handling and disposal practices.

Producers located in remote areas should plan for the proper handling and disposal of spent materials through permitted third-party waste management or agricultural reuse services. For Alcoholic Beverage Producers that operate kitchens or serve food, awareness of WSSC Water's Fats, Oils, and Grease (FOG) Program is essential: www.wsscwater.com/fog. Food service establishments are required to obtain a FOG permit to manage grease properly and prevent sewer blockages.

By minimizing solids at the source through these BMPs, alcoholic beverage producers can reduce their environmental impact and help protect the WSSC Water sanitary sewer system and receiving WRRFs.

pH Management

Wastewater from alcoholic beverage production can become too acidic or alkaline due to fermentation byproducts and cleaning processes. If not properly managed, extreme pH levels can corrode sewer infrastructure, harm workers and disrupt WRRF operations. To comply with local discharge limits of 6 - 10 S.U., alcoholic beverage producers should monitor and adjust pH before discharge to the WSSC Water sanitary sewer. Recommended BMPs include:



Capture wastewater in totes, tanks or containers for pH adjustment prior to discharge.



Use mild alkaline solutions (e.g., baking soda, lime) to neutralize acidic wastewater and mild acids (e.g., vinegar, citric acid) to neutralize alkaline wastewater.



Mix thoroughly after chemical addition and verify pH with strips or a calibrated meter.



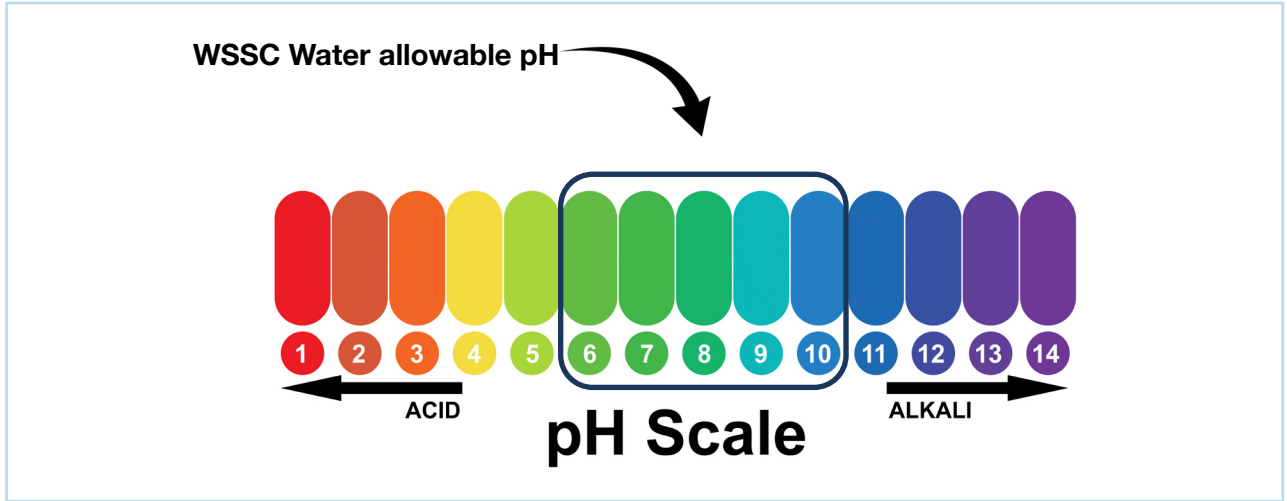
Log pH measurements before and after neutralization.



Develop a written standard operating procedure (SOP) for neutralization and train employees.



Post signage and raise staff awareness to prevent accidental discharge of untreated wastewater from processes like tank cleanings, keg washing and floor washing.



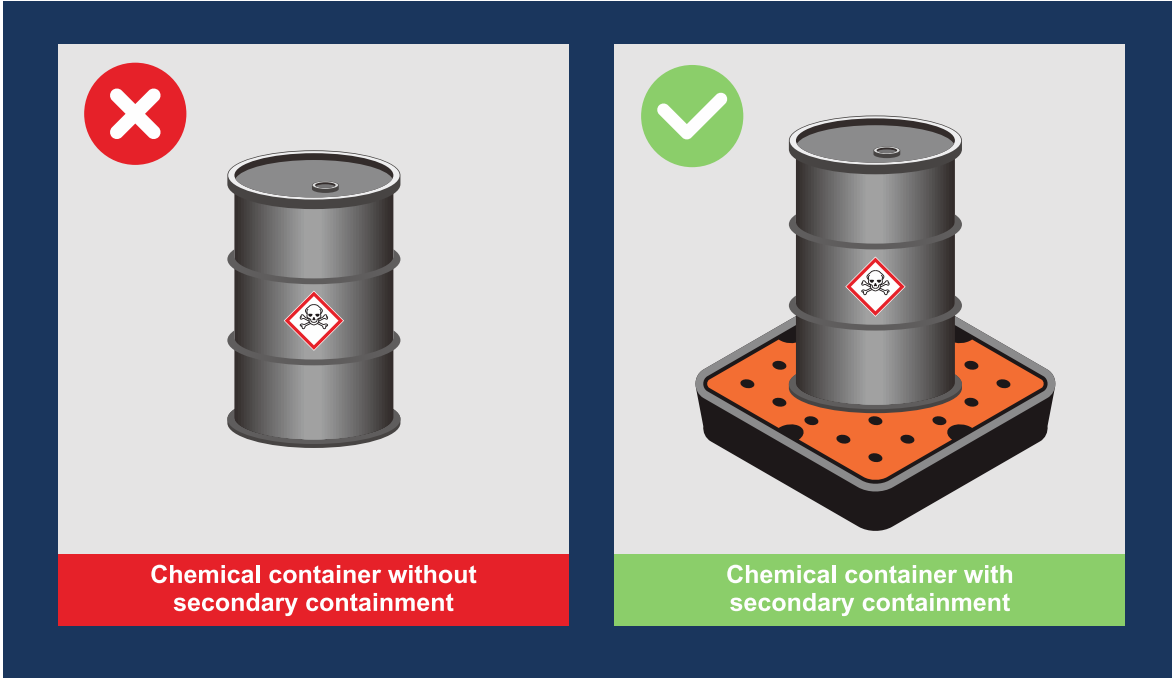
Temperature Monitoring

Alcoholic beverage producers must ensure wastewater temperatures do not exceed the local limit of 140°F, as high temperatures can disrupt treatment processes and pose risks to sanitary sewer system workers. Dilution to meet temperature limits is prohibited. If temperatures exceed limits, producers should implement proper cooling methods such as heat exchangers, cooling tanks, recirculating systems or mixing with cooler existing waste streams. Conservation strategies, like Clean-In-Place (CIP) systems using air- or glycol-cooled equipment, can help reduce water use and heat generation. Maintain temperature logs and document corrective actions to support compliance, improve efficiency and reduce environmental impact.



Chemical Storage and Spill Prevention

Alcoholic beverage producers must implement robust chemical storage and spill prevention measures to protect wastewater systems and the environment.

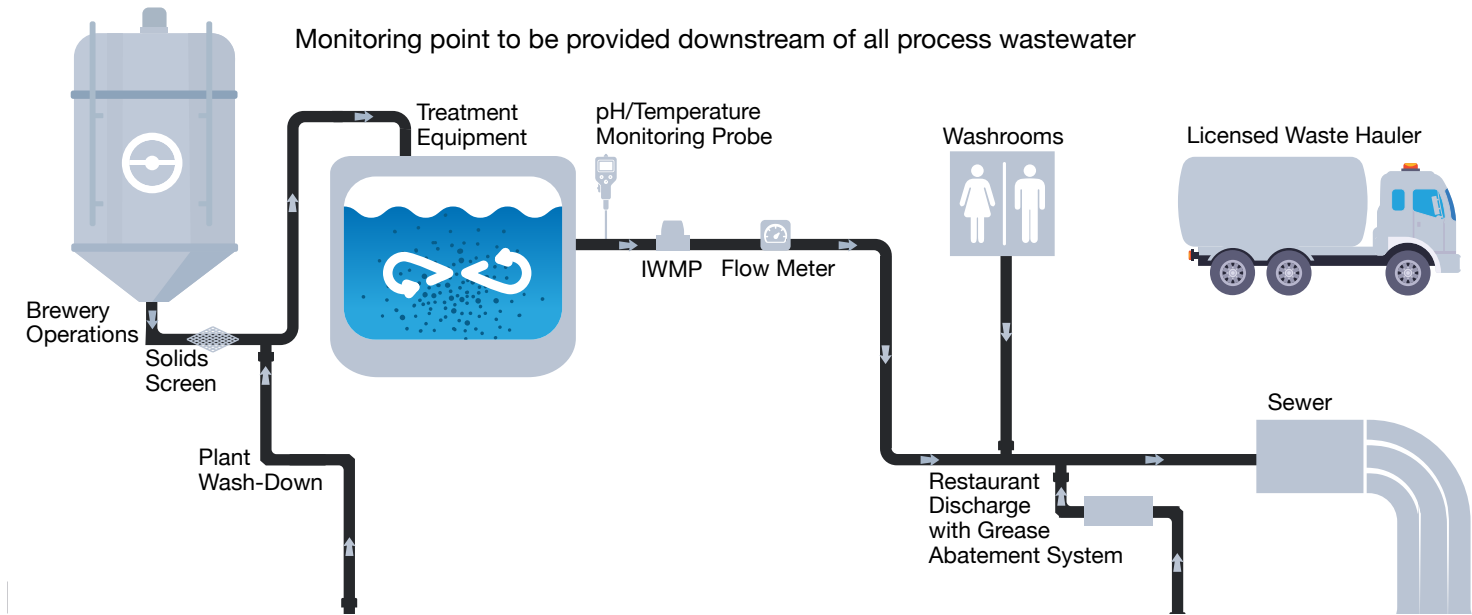


1. Store chemicals in labeled, compatible containers with secondary containment, away from high-traffic areas, drains and direct sunlight. Secondary containment includes control measures designed to prevent spills from spreading beyond a localized area and should be sized to handle at least the volume of chemicals stored at that location.
2. Regularly inspect storage areas for leaks, corrosion or damage.
3. Separate incompatible substances (acids and bases) and use drip pans under dispensing points.
4. Maintain a current chemical inventory and storage map.
5. Implement and train staff on a spill response plan.
6. Keep spill kits accessible and properly sized.
7. For spills to the sanitary sewer, contact the WSSC Water Industrial Discharge Control Program at 301-206-8841 or, if after hours, the WSSC Water Emergency Call Center at 301-206-4002.

Industrial Waste Monitoring Point (IWMP)

New alcoholic beverage producers must designate or install an IWMP as specified by the WSSC Water Industrial Discharge Control Program. The IWMP – typically located downstream of production areas but upstream of domestic waste – allows for effective compliance monitoring of process wastewater, including discharges from fermentation, tank drainage, and bottling areas. Plumbing plans submitted to WSSC Water must also include process waste piping details, segregation of domestic and process waste streams, and any required pretreatment systems (e.g., pH neutralization). Additionally, alcoholic beverage producers are required to complete an Industrial Waste Survey (IWS) or, if classified as a Significant Industrial User (SIU), a Discharge Authorization Permit (DAP) Application. WSSC Water may conduct inspections and monitor wastewater to characterize discharges and ensure compliance with Chapter 8 Industrial and Special Waste of the WSSC Plumbing and Fuel Gas Code (<https://www.wsscwater.com/codebooks>).

For questions or assistance:
contact the WSSC Water Industrial Discharge Control Program at 301-206-8841
or at industrialdischargecontrol@wsscwater.com.



Contact Information

Industrial Discharge Control Section

Email: industrialdischargecontrol@wsscwater.com
Phone: 301-206-8841 (8:00 AM – 5:00 PM)
Website: www.wsscwater.com/idc

Fats, Oil and Grease Section

Email: fog_unit@wsscwater.com
Phone: 301-206-8811 (7:00 AM – 3:00 PM)
Website: www.wsscwater.com/fog

WSSC Water Emergency Call Center

Phone: 301-206-4002 (All other times)
Email: emergencycallcenter@wsscwater.com

WSSC Water Permitting Guidelines and Resources

Plumbing and Fuel Gas Code: www.wsscwater.com/codebooks

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