Brewery Wastewater FAQ's



• What Is In Brewery Wastewater?

High strength organic materials; measured by testing for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS)

• What Is The Impact of Wastewater?

Wastewater collection systems (underground sewer pipes) can be impacted by corrosivity from low pH wastewater, and buildup of solids typically settling out in manholes or piping. High BOD concentrations may adversely impact the municipal biological treatment system, the operation of which relies upon balancing organics and solids coming into the plant.

How Should Wastewater Be Dealt With?

At a minimum, pH should be adjusted to meet the standard pH limits of 5 – 9 standard units (su), although some communities may allow higher pH limits (up to 12 su). A typical treatment system would include a flow equalization tank, and a chemical feed system for pH adjustment before discharging to the municipal sewer. However, if the production capacity at the brewery is greater than 15 bbls, additional treatment may be required to remove solids and reduce the organic loading.

• Other Issues (chemicals?)

Cleaning chemicals may contain non-biodegradable constituents that could also be toxic to the biological system at the local treatment plant. Look for "green" environmentally-friendly solutions.

What About Stormwater?

State and federal regulations require Best Management Practices for stormwater pollution prevention. A permit may be required from your state agency or the federal EPA. The intent is to manage outside storage and activities to prevent or at least minimize the potential for stormwater exposure and contamination.

• How To Navigate The Regulatory/Permitting Process?

Before leasing or purchasing a facility to grow your brewing business, you must have an understanding of the different regulations that may be applicable to you in that specific location. In addition to a local Building Permit, you should at least check the town or city's website for online documents such as ordinances that may apply to your business. One document to look for is the Sewer Use Ordinance, all towns and cities are required to have one. It is strongly recommended that the local Water and Sewer District or Authority be contacted prior to construction or renovations to find out if they will be requiring you to obtain a sewer discharge permit which may contain limits on flow, pH, BOD and TSS requiring installation of a pretreatment system. You also need to check in with State DEP to learn about the stormwater requirements in that state.

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• Who Do I Talk To?

Municipal government contacts such as Economic Development, the Planning Board, Public Works, Code Enforcement Officer, Fire Chief, the Superintendent of the municipal wastewater treatment facility, or the Pretreatment Coordinator if they have one. Search the municipal website for contact information. There are engineers and consultants who are familiar with these requirements who can guide you through the process. Be sure to contact these resources early in your planning stage.

• How Do I Maintain and Improve My Wastewater Pretreatment System?

If you are required to install a pretreatment system for your wastewater, you will need to monitor and maintain it through the life of your brewery. For example, if pH monitoring or adjustment is required by the Sewer District or Department, the pH meters will need periodic calibration and replacement. Floor drains, pipes and tanks will need periodic cleaning, and reports may need to be filed with the Sewer District or Department. Be sure that you understand the operating and maintenance requirements for any Wastewater Pretreatment system components. Proper operation and maintenance will improve the life of your system and minimize the necessity for costly upgrades and repairs.

• Septic System Or Sanitary Sewer?

Your facility location or prospective location may discharge to an on-site septic system if there is not a sanitary sewer nearby. Work with a Licensed Site Evaluator to ensure your septic system is properly designed to accept the wastewater you are discharging to it. Ensure you understand the operating requirements for the septic system. Septic tanks require periodic pumping.

Septic systems still affect wastewater treatment facilities because the sludge that is pumped out of the septic tank is disposed of at a wastewater treatment facility. The sludge will be extremely high in BOD and has the potential to greatly affect the wastewater treatment plant system. Wastewater treatment plants must monitor septic hauler discharges for this reason.

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Where Can I Find More Information On These Subjects?

There is an abundance of information available on each of these subjects. The Maine Water Environment Association (MeWEA) Pretreatment Committee web site has a brewery-specific resource section for brewers and municipalities. You will find fact sheets for each of the subjects above with more details. Visit www.mewea.org/pretreatment-committee/ and scroll to the bottom of the page and look in the Industrial Resources section. Or simply click on the FAQ title above to find more information on each subject.

Links and Resources:

Maine Water Environment Association (MeWEA) - www.mewea.org

MeWEA Pretreatment Committee – <u>www.mewea.org/pretreatment-committee</u>

Brewers Association Water/Wastewater Sustainability Manual - https://www.brewersassociation.org/educational-publications/water-wastewater-sustainability-manual/

Licensed Site Evaluators (for septic systems) - https://www.maine.gov/dhhs/mecdc/environmental-health/plumb/lists.htm