

**Mini-Track Session Descriptions**

**2020 Virtual Onsite Wastewater Mega-Conference**

**Alcohol & Wastewater**

**Tuesday, November 17, 2020 – 2:00 pm – 4:00 pm**

*Presenter: Jim King*

This presentation focuses on the methods used to design a septic system for the varying waste strength from different brewing operations. The presenter will examine the concerns attached with specific results (BOD, TSS, Nitrogen, pH, etc.) from testing and where these concerns arise in the brewing process. The environmental impact of each identified result will be examined, specifically focusing on disposal concerns. The presentation will end with a discussion on methods used to manage the wastewater and will include an examination of treatment options, standards that exist to address the concerns of the industry and considerations on pump and haul.

**Session title: Identifying Challenges of Alcohol Processing Wastewater (1 hour)**

*Presenter: Lorna Withrow & Sushama Pradhan*

When discharging wastewater effluent to a subsurface dispersal wastewater system, the last thing one wants to do is to compromise the system or contaminate soil, groundwater or surface water. It would be so much easier if all wastewater was created equal. However, that is not the case. There are industries that produce wastewater containing constituents or having constituent concentrations at levels that discharges of untreated or undertreated wastewater may pose potential threats to the environment and public health. Characteristics of the wastewater produced are the result of the raw products and processes utilized in production. Differences in raw products or processes can result in distinct and dramatic differences in wastewater generated by facilities producing equivalent end products. The alcohol production for human consumption (e.g., beer, liquor, wine) industry is an example of such wastewater generation. The wide range of parameter levels and constituent concentrations in alcohol production generated wastewaters present challenges when it comes to treatment, especially when utilizing soil as the last phase of the treatment process. Failure to reduce constituent concentrations can create multiple issues. For instance, while mass loading of BOD positively correlated with development of a clogging layer in dispersal areas, high sodium concentrations can cause dispersion of clay particles in the soil reducing the permeability.