

# Wednesday March 27<sup>th</sup>, 2024 10:00 AM to 11:30 AM

# **CSWEA Operator Training Course: Activated Sludge II**

### **OVERVIEW**

This program explains further the basis for specific process control strategies, the calculations used to implement them and the sampling programs to support them.

There is minimal overlap between this course and Activated Sludge I, and while taking Activated Sludge I is highly recommended, it is not a prerequisite for Activated Sludge II. Therefore, this class can be considered a 'standalone' option.

**WARNING:** This course is not for beginners in the wastewater treatment profession or those who have not been exposed to the activated sludge process in their job.

#### **AGENDA**

10:00 am Introduction

## 10:05 am Course Topics:

- Sequencing Batch Reactor
- Trickling Filters
- Rotating Biological Contactor
- Review on Activated Sludge
- Waste Activated Sludge
- Return Activated Sludge
- Nitrogen and Phosphorus Removal
- Math Problems

### 12:00 pm Adjourn

#### **CONTINUING EDUCATION**

- **1.5 CEUs** for Operators in Illinois, Wisconsin & Minnesota. Operator ID/Quiz required for webinar.
- 1.8 PDHs for all Professional Engineers









#### COST

\$35 - Members (Discount Code: CSWEA)

\$40 – Non-Members

\$10 - Student (Discount Code: Student)

\$10 – International (Discount Code: International)







## **Instructor:**

# Jim Mangum



Jim is an IEPA Class 1 Wastewater and Class C Water operator with roughly 10 years' experience in the industry. He started out as seasonal help during summers while in school assisting with all aspects of public works. In his tenure of public works, he worked his way up from summer help to Utilities Superintendent. This experience was built off not only normal responsibilities but also contract operating on the side. From there he moved onto contract operations focusing on trouble shooting facilities and design build until settling back down at Northern Moraine WRD as Chief Operator of Treatment. His experience has granted him unique opportunity to

experience and work on a wide variety of systems across the US.