Conventional and Direct Filtration

Note: 6 hours total (0.6 CEUs) not including breaks & lunch

9 am **Introduction/Overview**

Coagulation

- Objective
- Options (chemical injection pumps and mixers)
- Coagulants
- Process Control (dose, mixing, jar testing, streaming current meters)

10:15 am **Break (15 minutes)**

10:30 am **Flocculation**

- Objective
- Options (hydraulic and mechanical flocculation)
- Flocculant aids
- Process control (hydraulic detention time & mixing)

12 noon **Lunch (on your own)**

1 pm **Clarification/Sedimentation**

- Objective
- Options (conventional basins, tube & plate settlers, etc.)
- Process control (surface overflow rate, and optimization goals)

2 pm **Filtration**

- Objective
- Options (mono/dual/mixed media/deep bed/biologically active filtration)

2:15 pm **Break (15 minutes)**

2:30 pm **Filtration (continued)**

- Filter aids
- Backwash
- Process control (filter loading rate, headloss, unit filter run volume, backwash observations and optimization goals)

3:30 pm **General Operations**

- Proper treatment plant sampling locations (turbidity, chlorine residual, TOC)
- Instrument calibration
- Operations & maintenance manuals
- Reporting requirements
- Resources for operators

4:30 pm **End**