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# Interactive Wastewater Training FREE

## FREE Zoom Virtual Training

This is to offer a free series of 90 minute training sessions on the following 10 wastewater related subjects. Continuing education or professional development units will be rewarded upon successful completion of each session. Complementary post-course training is offered those who wish to further their knowledge base.

For more information contact: [wwixjohn@gmail.com](mailto:wwixjohn@gmail.com)  
Questions?... phone/text: 971-563-7471

### 1. Wastewater Treatment Basics:

6 Feb 2025—10:30am PST

Introduce the fundamentals of wastewater collection and treatment.

Includes: Flow schematics, descriptions of equipment and steps used to accomplish wastewater collection & treatment.

### 2. Introduction to Biological Treatment:

13 Feb 2025—10:30am PST

Describes the biology and equipment associated with treatment using lagoons, activated sludge & trickling filter related processes.

Includes: Needs and effects of oxygen, temperature, solids and nutrients on treatment performance.

### 3. Operation of Activated Sludge (AS) Processes:

20 Feb 2025—10:30am PDT

Provides the range of loading and conditions for AS operation. Troubleshooting AS problems and case histories given.

Includes: Control parameters, equations and operational tools for assessing and changing plant operation.

### 4. Operation of Trickling Filters (TFs) and Related Processes

27 Feb 2025—10:30am PDT

Presents process variations for TFs, TF Solids Contact and related processes. Operational tools and recommended loading given.

Includes: Operational control methods and load equations. Discusses media types, distribution methods and hydraulic flushing.

### 5. Natural Wastewater Treatment Systems:

6 Mar 2025—10:30am PDT

Explains the components and performance of ponds, lagoons and various types of land application systems.

Includes: The advantageous and disadvantages of operating natural versus mechanical treatment systems.

### 6. Biological Nutrient Removal (BNR):

13 Mar 2025—10:30am PDT

Describes efforts to control nutrients and the biological processes for removing both nitrogen (N) and phosphorus (P).

Includes: Process modifications and control schemes for removing nutrients. Case histories for BNR presented.

### 7. New and Emerging Wastewater Technology:

20 Mar 2025—10:30am PDT

Illustrates how to upgrade with biological selectors. New and emerging technologies described by use of case histories.

Includes membrane bioreactors (MBRs), moving bed bioreactors (MBBRs) and aerobic granular sludge (AGS).

### 8. Aeration and Power Consumption:

27 Mar 2025—10:30am PDT

Describes aeration equipment & explains oxygen transfer. Compares & discusses power consumption by treatment process.

Includes: Introduction to various aeration diffusers and air blowers. Covers standard versus field transfer including calculations for O<sub>2</sub> transfer.

### 9. Foam and Bulking Sludge Control:

3 Apr 2025—10:30am PDT

Introduction to indicator organisms and causes of excessive foam, filaments and bulking sludge.

Includes: Problem identification followed by operator or engineering solutions to foam/filament problems.

### 10. Case Histories in Wastewater Treatment:

10 Apr 2025—10:30am PDT

Presents operator developed descriptions of their wastewater treatment plant including pros & cons of processes operation.

Includes: Owner/operator experiences of startup, day-to-day operation and troubleshooting plant problems.

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