

# Wastewater Microbiology Series

Louisville, KY, July 30-31, 2024

## Tuesday, July 30

Time	Session Title
8:00 - 9:00	Introduction to Microscopy <ul style="list-style-type: none"><li>• Slide preparation</li><li>• Sampling</li><li>• Hands-on Activity</li></ul>
9:00 - 10:15	Wastewater Microbiology <ul style="list-style-type: none"><li>• The Role of Bacteria</li><li>• Growth Characteristics</li><li>• Parameters Affecting their Growth</li><li>• Hands-on Activity</li></ul>
10:15 - 10:30	Break
10:30 - 12:00	The Role of Protozoa and Metazoans <ul style="list-style-type: none"><li>• Parameters Affecting their Growth</li><li>• Identifying Protozoa and Metazoans</li></ul>
12:00 - 1:00	Lunch
1:00 - 2:00	Process Control Using the Microscope <ul style="list-style-type: none"><li>• Dispersed Bacteria</li><li>• Protozoa &amp; Metazoa: Relative Dominance</li><li>• Slime Bulking &amp; Nutrient Deficiency</li><li>• Toxicity</li></ul>
2:00 - 2:15	Break
2:15 - 4:00	Microorganisms Response to Unfavorable Conditions <ul style="list-style-type: none"><li>• Bacteria - Zooglea</li><li>• Bacteria - Exocellular Lipopolysaccharide</li><li>• Protozoa &amp; Metazoans - Shelled (Testate) Species</li></ul>

DAY 1



## Wednesday, July 31

Time	Session Title
8:00 - 8:45	What are Filamentous Bacteria? <ul style="list-style-type: none"><li>• Conditions that favor their growth</li></ul>
8:45 - 9:00	Sampling and Staining <ul style="list-style-type: none"><li>• Slide preparation</li><li>• Hands-on activity</li></ul>
9:00 - 10:00	Filamentous Bacteria Characteristics <ul style="list-style-type: none"><li>• Cell size and shape</li><li>• Sheath and motility</li><li>• Attached growth</li><li>• Sulfur granules</li><li>• Hands-on activity</li></ul>

DAY 2

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Wednesday, July 31



DAY 2

Time	Session Title
10:00 - 12:00	A Simple Approach to Identification and Control <ul style="list-style-type: none"><li>• Bulking filaments</li><li>• Foaming filaments</li><li>• Staining</li><li>• Hands-on activity</li></ul>
12:00 - 1:00	Lunch
1:00 - 2:00	Filamentous Bacteria Counting <ul style="list-style-type: none"><li>• Hands-on activity</li><li>• Case studies</li></ul>
2:00 - 4:00	Microbiological Monitoring of EBPR Systems <ul style="list-style-type: none"><li>• PAOs, PHB, POLYp and GAOs</li><li>• PHB and Neisser Staining</li><li>• Quantifying PAOs and GAOs</li><li>• Hands-on activity</li></ul>

## Registration Information

- Member registration: \$200
- Non-member registration: \$300
- Sponsorship opportunities are available for \$500! Your sponsorship will include one complimentary registration and your logo will be added to all promotional material.

**This is a hands-on training event, and we encourage you to bring your own microscope and sample. We hope to see you in Louisville!**