

## **Wastewater Operations: Wastewater Analysis for Disinfection & Nutrients**

October 15, 2024 ~ WRWA Technology Center, 351 Water Way, Plover, WI 54467 (6 Wastewater Credits)

The room will open at 7:30 AM with the class starting promptly at 8:00 am. The class will end at 3:00 pm.

## **AGENDA**

- Sampling
- Introduction to Colorimetry & Spectrophotometry
- Lab Set Up Total Phosphorus Digestion
- Creating a user program on the Hach DR3900/DR1900
- Introduction to Phosphorus in WW
- On-going LOD study overview
- Lab Orthophosphate Analysis with TNT+/DR900
- Lab Total Phosphorous in WW
- Lab D.O. Calibration/HQ30D
- Lunch
- WDNR Laboratory Accreditation Update
- Lab Analysis of Total Nitrogen, Ammonia and Nitrate
- Wastewater Disinfection
- Lab ULR Chlorine in Wastewater

Instructors: Brenda Staudenmaier & Brooke Klingbeil Wisconsin Rural Water Association & Shawn Buettner Hach

This workshop is designed as an introduction to wastewater disinfection and nutrient management. The test methods used to monitor and control nutrient removal (i.e., nitrogen and phosphorus) in biological wastewater treatment systems are covered. Test methods in this course include total nitrogen, ammonia, nitrate, dissolved oxygen, total phosphorus, orthophosphate and ULR chlorine. Sampling and variable process instruments are also discussed. Course objectives will be met through technical presentations and hands-on labs using portable and benchtop laboratory instruments. Students will analyze samples of known and unknown values.

## Pre-Registration is required for this class. Complete the form below and return to WRWA

	\$110 per Member	\$140 per Non-Member	
Name		NR Certification Number	
System/Emplo	yer		
Address			
City, State		Zip	
Phone	Email		
	Send payment and form to: V	/RWA, 350 Water Way, Plover, WI 54467	
<b>To pay by credit card:</b> (Visa, Discover, MasterCard, E-Check, Debit Card Only) Go to <a href="http://www.wrwa.org">http://www.wrwa.org</a> Must fax completed form(s) to (715) 344-5555 or email the completed form(s) to <a href="http://www.wrwa.org">wrwa@wrwa.org</a>			
	Paid with credit card	Check enclosed	
	For more information: Phone:	(715) 344-7778 Email: wrwa@wrwa.org	

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