

### About the Trainer

Toni Glymph is the Senior Environmental Microbiologist for the Metro Reclamation District of Greater Chicago. She has more than 33 years of experience teaching and researching wastewater microbiology and has written several books for operators. Toni teaches activated sludge microscopy, microscope techniques, and process control courses throughout the United States. Toni is a former wastewater operator from the Detroit Wastewater Treatment Plant and has won many professional awards.



## Indigo Water Group

Indigo Water Group is a small, woman-owned business in Littleton, Colorado that specializes in water and wastewater treatment. We offer a wide range of services from utility plans to specialized on-site training to assistance with laboratory and water/wastewater operations to collection system and process modeling.

Visit our website to download our **FREE** math workbooks and **FREE** sample study questions for the certification exams.

**New! FREE On-Line math training videos.**



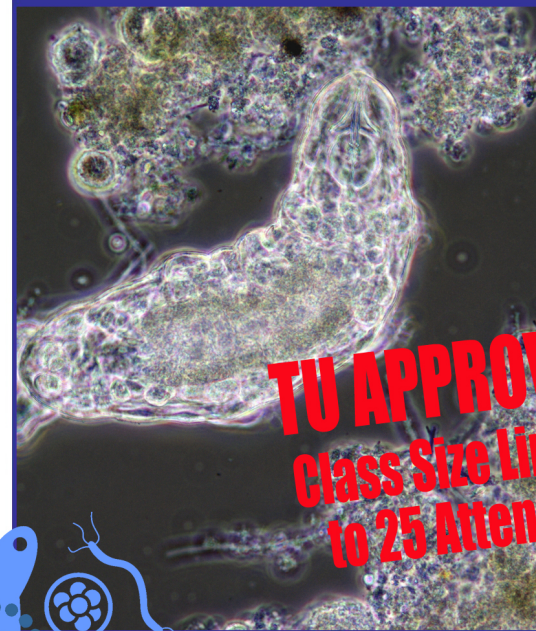
To Register: Call 303.489.9226, mail in the enclosed registration form, FAX to 303.484.3304, or register on-line at [www.indigowatergroup.com](http://www.indigowatergroup.com) Mail payment by check or pay on-line by credit card.



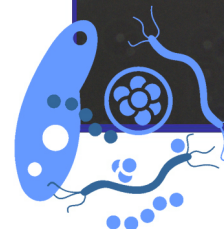
Indigo Water Group  
626 West Davies Way  
Littleton, Colorado 80120

# Wastewater Microbiology & Process Control

**August 16 - 17, 2016  
NORTHGLENN**



**TU APPROVED**  
**Class Size Limited**  
**to 25 Attendees**



**INDIGO  
WATER GROUP**

Phone 303.489.9226  
eFax 303.484.3304  
[sidney@indigowatergroup.com](mailto:sidney@indigowatergroup.com)

## WASTEWATER MICROBIOLOGY & PROCESS CONTROL

New for 2015! We have the pleasure of hosting Toni Glymph, renowned activated sludge microbiologist, for a two-day, hands-on microscopy course. Please visit our website at <http://www.indigowatergroup.com/register.htm> for more information or call 303-489-9226.

**Classes are limited to 25 attendees each.**

TRAINING UNITS					
	W	WW	I	C	D
Total		1.50	1.50		

### LOCATIONS

**NORTHGLENN** City of Northglenn  
**August 16 – 17, 2016** Maintenance and Operations  
12301 Claude Court  
Northglenn, CO 80241

### WHO SHOULD ATTEND?

This course is geared toward wastewater operators actively engaged in activated sludge process control. Learn how to properly set up your microscope, prepare slides and stains, count protozoans and metazoans, and interpret results. Day 2 focusses on filaments and their identification and control. There is tons of hands on time in this two day course!

Bring a microscope to use and share for a discount on course registration. As an added bonus, you'll learn exactly how to use and maintain your microscope.

## COURSE AGENDA

### Day 1

#### Introduction to Microscopy

- *The Microscope*
- *Slide Preparation*
- *Sampling*

#### Wastewater Process Overview

- *The Role of Bacteria*
- *Bacteria as Indicators of Treatment System Conditions*
- *Identification of Protozoans*
- *Protozoans as Indicators*
- *Protozoan Counts at Microscope*
- *Identification of Metazoa*
- *Role of Metazoa*

#### Process Control

- *Dispersed Bacteria*
- *Nutrient Deficiency*
- *Slime Bulking*
- *Toxicity*
- *Case Studies and Review*

### Day 2

#### Introduction to Filamentous Bacteria

- *Filament Characteristics*
- *Staining and Identification*
- *Causes and Controls*
- *Case Studies*
- *Developing a Laboratory Program*

#### Review

**Attendees are encouraged to bring samples of activated sludge mixed liquor from their own treatment facilities for hands-on exercises.**

## HOW TO REGISTER

Registration may be done by mailing in the attached form, faxing, by telephone, or through our website at [www.indigowatergroup.com](http://www.indigowatergroup.com). We accept major credit cards through our website or checks by mail.

Registration fee is **\$495 per person**. A light breakfast, lunch, and afternoon snack break, are included. Registration and coffee from 8:00 to 8:30 am. Seminars starts at 8:30 am and run until 5:15 or 5:30 pm for 0.70 training units approved by the State of Colorado. The seminar schedule includes 45 minutes for lunch and two 15 minutes breaks.

☐ \$495 per attendee for Wastewater Microbiology and Process Control

Attendee 1:

Attendee 2:

Attendee 3:

Attendee 4:

Company:

Address:

City:

State:

Zip:

Telephone:

E-mail:

\*\* An e-mail address is necessary for invoicing and to send a courtesy reminder to attendees a day or two prior to the course.

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