

# Activated Sludge Workshop

February 29, 2012



- *Introduction to the activated sludge process including wastewater characterization, activated sludge microorganisms, and the process objectives of the aeration basin and clarification process.*
- *Learn the various process modes and alternatives available with the activated sludge process.*
- *Discuss variables that affect the activated sludge process with the cause and affect of each.*
- *Learn the methods to utilize visual observations and the settleometer to make process observations.*
- *Fundamentals of nitrification and denitrification will be presented including process variables.*



Presented by:  
Water Environment Services  
Oak Lodge Sanitary District  
Lower Columbia Section PNCWA



## Workshop Modules

- *Activated Sludge Basics*
- *Activated Sludge Process Modes and Alternatives*
- *Activated Sludge Process Growth Factors*
- *Activated Sludge Process Control-Quantity and Quality*
- *Activated Sludge - Nitrification/ Denitrification*

*Pending .70 CEU's*

## **Workshop Information**

*Wednesday, February 29, 2012*

*8:00 - 8:30 a.m. Registration*

*8:30 a.m. - 4:00 p.m. Workshop*

*Location:*

*150 Beaver Creek Road, Oregon City, OR 97045*

*Refreshments and lunch are included*

### **About the Instructor**

*Dale Richwine is a certified grade VI Operator and professional engineer. His experience includes operating and designing wastewater treatment facilities with a focus on process optimization.*

### **Registration Information**

*Cost for the workshop is \$75 and includes morning break coffee and snack, box lunch and afternoon soft drink and snack.*

*Registration is limited to the first 40 registrants.*

**Registration forms must be received by February 15, 2012.**

*For more information contact Kim Rose or Mark Walter at 503-653-1653 or email [klrose@olsd.net](mailto:klrose@olsd.net)*

## **Registration Form**

*Please make checks payable to Lower Columbia Section and send to :  
Oak Lodge Sanitary District, Attention Kim Rose  
14611 SE River Road, Oak Grove, Oregon 97267*

*Name:* \_\_\_\_\_

*Address:* \_\_\_\_\_

*City / State / Zip:* \_\_\_\_\_

*Phone:* \_\_\_\_\_

*Employer:* \_\_\_\_\_

*Amount Enclosed:* \_\_\_\_\_

*If you require a vegetarian meal choice, please indicate by checking here* \_\_\_\_\_