



# WASTEWATER TRAINING

## WASTEWATER MATH, SAFETY, & ADMIN TRAINING

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May 10, 2023 | Hybrid Training

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0.6 Wastewater CEUs Available

<b>TIME</b>	<b>AGENDA ITEM</b>
<b>8:30 - 10 AM</b>	<b>Basic Wastewater Math</b>
<b>10- 10:15 AM</b>	<i>Break</i>
<b>10:15-11:45 AM</b>	<b>Advance Wastewater Math</b>
<b>11:45 AM-1 PM</b>	<i>LUNCH (on your own)</i>
<b>1- 2:30 PM</b>	<b>Safety</b>
<b>2:30- 2:45 PM</b>	<i>Break</i>
<b>2:45- 4:15 PM</b>	<b>Administration</b>

# WASTEWATER TRAINING

## 4 CORNERS WASTEWATER TRAINING | MOAB 2024

Wednesday, December 04 - Friday, December 06, 2024

1.5 Wastewater CEUs | In-Person Only Event

### TIME                      AGENDA ITEM

#### DAY ONE- WEDNESDAY

8:30-10 AM	Microbiology   Heather Jennings
10:15-11:45 AM	PFAS   Heather Jennings
12-1 PM	LUNCH
1-2:30 PM	Math 101   Jeff Richins
2:45-4:15 PM	Advanced Math   Jeff Richins

#### DAY TWO- THURSDAY

8:30-10 AM	Track 1- RBCs & Trickling Filters   Larry Hall
8:30-10 AM	Track 2- Scada 101   Eric Turner
10:15-11:45 AM	Track 1- Anaerobic Digestion   Larry Hall
10:15-11:45 AM	Track 2- Electrical 101   Eric Turner
12-1 PM	LUNCH
1-2:30 PM	Track 1- Lab 101   Jed Powell
1-2:30 PM	Track 2- Lifstations O&M   Eric Turner
2:45-4 PM	Track 1- Headworks   Tess Laffer
2:45-4:15 PM	Track 2- Inflow & Infiltration   Eric Peterson

#### DAY THREE- FRIDAY

8:30-10 AM	Track 1- Activated Sludge   Chad Burrell
8:30-10 AM	Track 2- Collections O&M   Twin D
10:15-11:45 AM	Track 1- Reuse/Prep Permit Renewal   Dan Griffin
10:15-11:45 AM	Track 2- Collections O&M

# WASTEWATER TRAINING

## 4 CORNERS WASTEWATER TRAINING | MOAB 2023

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DAY TWO- Thursday, December 07, 2023

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0.6 Wastewater CEUs

<b>TIME</b>	<b>AGENDA ITEM</b>
<b>8:30-10 AM</b>	<b>Collection, What you Need to Know?</b>   <i>Jen Robinson (DWQ)</i>
<b>10:15 AM-12PM</b>	<b>Asset Management</b>   <i>Harry Campbell (DWQ)</i>
	<b>LUNCH</b>
<b>12-1 PM</b>	<b>The Changing Art of Lagoon Management</b>   <i>Rick Allen (Biolynceus)</i>
<b>1:15-2:45 PM</b>	<b>SCADA 101</b>   <i>Eric Turner (Dorsett Controls)</i>
<b>3:00-4:30 PM</b>	



# WASTEWATER TRAINING

## 4 CORNERS WASTEWATER TRAINING | MOAB 2023

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*DAY THREE- Friday, December 08, 2023*

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0.6 Wastewater CEUs

### TIME

### AGENDA ITEM

**8:30-10 AM**

**Electrical 101** | *Eric Turner (Dorsett Controls)*

**10:15 AM-12PM**

**Pretreatment, Loading, and Hauled Waste** | *Jen Robinson (DWQ)*

# WASTEWATER TRAINING

## IN-DEPTH WASTEWATER CERTIFICATION TRAINING | ONLINE

Thursday, April 18, 2024

0.6 Wastewater CEUs

### TIME

### AGENDA ITEM

9:00-10:30 AM	<b>Microbiology Fundamentals</b>   <i>Dennis Gunn (Rural Water)</i>
10:30-12:00 PM	<b>Microbiology Fundamentals</b>   <i>Dennis Gunn (Rural Water)</i>
12:00-1:00 PM	<b>LUNCH</b>
1:00-2:30 PM	<b>Bacteria</b>   <i>Spencer Parkinson (Rural Water)</i>
2:30-4:00 PM	<b>Microbial Growth Rates</b>   <i>Spencer Parkinson (Rural Water)</i>

## IN-DEPTH WASTEWATER CERTIFICATION TRAINING | ONLINE

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Thursday, May 16, 2024

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0.6 Wastewater CEUs

### CHAPTER 6 | FACULTATIVE PONDS

TIME	AGENDA ITEM
9:00-10:30 AM	<b>Purpose, Function, and Operation of Facultative Ponds</b>   <i>Phil Harold (Rural Water)</i>
10:30-12:00 PM	<b>Design and Expected Performance</b>   <i>Phil Harold (Rural Water)</i>
12:00-1:00 PM	<b>LUNCH</b>
1:00-2:30 PM	<b>Equipment and Process Variables</b>   <i>Spencer Parkinson (RWAU)</i>
2:30-4:00 PM	<b>Sampling, Analysis, Maintenance, and Troubleshooting</b>   <i>Spencer Parkinson (RWAU)</i>

**IN-DEPTH WASTEWATER CERTIFICATION  
TRAINING | ONLINE**

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*Thursday, June 20, 2024*

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0.6 Wastewater CEUs

**CHAPTER 7 | FIXED-FILM TREATMENT**

**TIME            AGENDA ITEM**

**9:00-10:30 AM**    **Purpose and Theory** | *Spencer Parkinson (RWAU)*

**10:30-12:00 PM**    **Trickling Filter Design, Performance, and  
Equipment** | *Spencer Parkinson (RWAU)*

**12:00-1:00 PM**    **LUNCH**

**1:00-2:30 PM**    **Trickling Filter Equipment** | *Dennis Gunn (RWAU)*

**2:30-4:00 PM**    **Trickling Filter Processes** | *Dennis Gunn (RWAU)*

## WASTEWATER IN-DEPTH CERTIFICATION TRAINING | ONLINE

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*Thursday, August 15, 2024*

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0.6 Wastewater CEUs

## CHAPTER 08 | ACTIVATED SLUDGE PART 1

### TIME      AGENDA ITEM

**9 AM-12:00 PM**    **Activated Sludge** | *Spencer Parkinson (RWAU)*

- Purpose & Function
- Theory of Operation
- Microbiology
- Design & Expected Performance
- Equipment

**12:00-1:00 PM**    **LUNCH** (*On your own*)

**1-4:00 PM**      **Activated Sludge Continued** | *Spencer Parkinson (RWAU)*

- Activated Sludge Process Variables and Controls



**WASTEWATER IN-DEPTH CERTIFICATION  
TRAINING | ONLINE**

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*Thursday, September 19, 2024*

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0.6 Wastewater CEUs

**CHAPTER 08 | ACTIVATED SLUDGE PART 2**

**TIME            AGENDA ITEM**

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|----------------------|--|
| <b>9 AM-12:00 PM</b> | <b>Activated Sludge</b>   <i>Spencer Parkinson (RWAU)</i> <ul style="list-style-type: none"><li>• Secondary Clarifier Process Variables and Controls</li><li>• Maintenance and Troubleshooting</li></ul> |
| <b>12:00-1:00 PM</b> | <b>LUNCH</b> ( <i>On your own</i> )  |
| <b>1-4:00 PM</b>     | <b>Activated Sludge Continued</b>   <i>Dennis Gunn (RWAU)</i> <ul style="list-style-type: none"><li>• Chapter 08 Review</li></ul>  |

## WASTEWATER IN-DEPTH CERTIFICATION TRAINING | ONLINE

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Thursday, October 17, 2024

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0.6 Wastewater CEUs

## WASTEWATER TREATMENT FUNDAMENTALS I- LIQUIDS HANDLING

### CHAPTER 19: NUTRIENT REMOVAL

#### TIME            AGENDA ITEM

##### **Nutrient Removal** | *Ron Pierce (RWAU)*

- Nitrogen and Phosphorous In Wastewater
- 9 AM-12:00 PM**
- Chemistry Review
  - Biological Nitrification
  - Biological Dentrification

**12:00-1:00 PM**    **LUNCH** (*On your own*)

##### **1-4:00 PM**            **Nutrient Removal** | *Dennis Gunn (RWAU)*

- Chemical Precipitation
- Enhanced Biological Phosphorus Removal
- Process Configurations
- Chapter Test Review

## WASTEWATER IN-DEPTH CERTIFICATION TRAINING | ONLINE

Wednesday, November 13, 2024

0.6 Wastewater CEUs

### CHAPTER 10: DISINFECTION PART 1- CHLORINE

#### TIME

#### AGENDA ITEM

**Teacher: *Spencer Parkinson (RWAU)***

**9 AM-12:00 PM**

- Purpose & Function
- Indicator Organisms
- Chlorine Disinfection: Theory of Operation
- Chlorine Disinfection: Design & Expected Performance
- Chlorine Disinfection: Equipment
  - Chlorination and Dechlorination Chemicals
  - Chlorine Containers
  - Gas Chlorine Systems
  - Sodium and Calcium Hypochlorite
  - Mixing Equipment and Contact Chamber

**12:00-1:00 PM**

**LUNCH** (*On your own*)

**1-4:00 PM**

**Teacher: *Dennis Gunn (RWAU)***

- Chlorine Disinfection: Process Variables
- Chlorine Disinfection: Process Control
- Chlorine Disinfection: Operation
- Chlorine Disinfection: Maintenance and Troubleshooting
  - Maintenance
  - Troubleshooting
- Chlorine Disinfection: Safety



# WASTEWATER TRAINING

## WASTEWATER IN-DEPTH CERTIFICATION TRAINING | HYRUM (IN-PERSON ONLY)

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*Friday, January 10, 2025*

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0.6 Wastewater CEUs

<b>TIME</b>	<b>AGENDA ITEM</b>
<b>9 AM-12 PM</b>	<b>Teacher: <i>Spencer Parkinson &amp; Dennis Gunn, RWAU</i></b> Advanced Math
<b>12-1 PM</b>	Lunch (On your own)
<b>1-4 PM</b>	Advanced Math

## WASTEWATER IN-DEPTH CERTIFICATION TRAINING | ONLINE

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Thursday, February 13, 2025

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0.6 Wastewater CEUs

### **WW TREATMENT FUNDAMENTALS II: SOLIDS HANDLING & SUPPORT SYSTEMS**

#### **TIME            AGENDA ITEM**

	<b>Teacher: <i>Dennis Gunn, RWAU</i></b>
<b>9 AM-12:00 PM</b>	Chapter 2 Continued   Thickening <ul style="list-style-type: none"><li>• Gravity Thickening</li><li>• Dissolved Air Flotation Thickening</li><li>• Gravity Belt Thickeners</li><li>• Centrifuge Thickening</li><li>• Rotary Drum Thickeners</li></ul>
<b>12:00-1:00 PM</b>	<b>LUNCH</b> ( <i>On your own</i> )
<b>1-4:00 PM</b>	<b>Teacher: <i>Spencer Parkinson, RWAU</i></b> <ul style="list-style-type: none"><li>• Polymer Systems</li><li>• Safety Considerations</li><li>• Odor Control Strategies</li><li>• Records and Reports</li><li>• Chapter Summary</li></ul>

# WASTEWATER TRAINING

## WASTEWATER LEVELS 3 & 4 IN-DEPTH TRAINING

Friday, March 14, 2025 | **ONLINE ONLY**

0.6 Wastewater CEUs

### *WW TREATMENT FUNDAMENTALS III: ADVANCED TREATMENT*

#### **TIME            AGENDA ITEM**

<b>9 AM-12:00 PM</b>	<b>Teacher: <i>Spencer Parkinson, RWAU</i></b> <ul style="list-style-type: none"><li>• Advanced Activated Sludge</li><li>• Membranes</li></ul>
<b>12:00-1:00 PM</b>	<b>LUNCH</b> ( <i>On your own</i> )
<b>1-4:00 PM</b>	<b>Teacher: <i>Spencer Parkinson, RWAU</i></b> <ul style="list-style-type: none"><li>• Leadership &amp; Management</li></ul>