



# SWMOA - MOC-II: Advanced Training of Reverse Osmosis & Nanofiltration Systems

\*Space limited to 30 attendees

## September 17-19, 2019

21 Contact Hours/PDHs - Pending Approval

Irvine Ranch Water District's  
**IRWD Learning Center:  
The Discovery Room**  
21 Riparian View, Irvine, CA 92612

### Day 1 - Tuesday - Sept. 17th

- 7:30 - 7:45 **Check-In & Continental Breakfast**
- 7:45 - 8:00 **Welcome & Introduction**
- Moderator **Steve Dishon, South Coast Water District**
- 8:00 - 9:00 **Chapter 1 - Introduction to Reverse Osmosis and Nanofiltration Systems and Technology**  
Steve Dishon, South Coast Water District
- 9:00 - 10:00 **Chapter 2 - Pre-Treatment Chemicals**  
Phil Christofferson, American Water Chemicals, Inc.
- 10:00 - 10:15 **Break**
- 10:15 - 11:15 **Chapter 2 - Pre-Treatment Chemicals (cont.)**  
Phil Christofferson, American Water Chemicals, Inc.
- 11:15 - 12:00 **Chapter 3 - Pre-Treatment Methods**  
Mark A. Waer, Ph.D., GHD
- 12:00 - 12:45 **Lunch (included)**
- 12:45 - 1:45 **Chapter 3 - Pre-Treatment Methods (cont.)**  
Mark A. Waer, Ph.D., GHD
- 1:45 - 2:45 **Chapter 4 - Membrane Applications**  
Steve Dishon, South Coast Water District
- 2:45 - 3:00 **Break**
- 3:00 - 5:00 **Chapter 4 - Membrane Applications (cont.)**  
Steve Dishon, South Coast Water District

### Day 2 - Wednesday - Sept. 18th

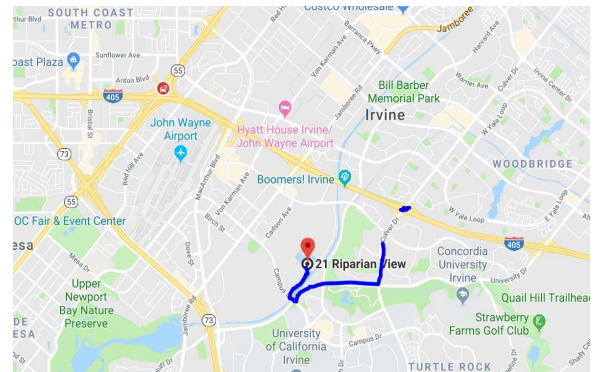
- Moderator **Nathan Boyle P.E., Hazen and Sawyer**
- 8:00 - 9:00 **Chapter 5 - Construction of Reverse Osmosis and Nanofiltration Membrane Elements**  
Myles Davis, Hydranautics
- 9:00 - 10:00 **Chapter 6 - Operating RO Membrane Systems**  
Mike Dummer P.E., Separation Processes, Inc.
- 10:00 - 10:15 **Break**
- 10:15 - 11:15 **Chapter 6 - Operating RO Membrane Systems (cont.)**  
Mike Dummer P.E., Separation Processes, Inc.
- 11:15 - 12:30 **Plant Tour: Irvine Desalter-Potable Treatment Plant**  
David Paulson, Irvine Ranch Water District
- 12:30 - 1:30 **Lunch (included)**
- 1:30 - 3:00 **Chapter 7 - Data Collection & Normalization**  
Mike Dummer P.E., Separation Processes, Inc.
- 3:00 - 3:15 **Break**
- 3:15 - 5:15 **Chapter 8 - Troubleshooting**  
Mike Dummer P.E., Separation Processes, Inc.

### Day 3 - Thursday - Sept. 19th

- Moderator **Nathan Boyle P.E., Hazen and Sawyer**
- 8:00 - 9:45 **Chapter 9 - Membrane Cleaning**  
Phil Christofferson, American Water Chemicals, Inc.
- 9:45 - 10:00 **Break**
- 10:00 - 11:00 **Chapter 10 - Concentrate Disposal**  
Nathan Boyle P.E., Hazen and Sawyer
- 11:00 - 11:30 **Chapter 11 - Glossary**  
Nathan Boyle P.E., Hazen and Sawyer
- 11:30 - 12:15 **Lunch (included)**
- 12:15 - 1:45 **Course Summary, Review and Evaluation**  
Moderator - Nathan Boyle P.E., Hazen and Sawyer
- 1:45 - 2:45 **Course Exam**

### Thanks to Host Facility:

Irvine Ranch Water District



**If Lost call 949-453-5300 (or 714-397-5768)**

**Directions from I-405: Avoid using Google Maps**

Exit Culver Dr. and Head West. Turn Right on University Dr. Turn Right on Campus Dr. Turn Right on Riparian View. Continue to IRWD Learning Center Parking.

#### Hotels in the Area:

**Hilton Irvine** - Ph: 949-833-9999

1800 MacArthur Blvd., Irvine, CA 92612

**Wyndham Irvine** - Ph: 949-863-1999

17941 Von Karman Ave., Irvine, CA 92614

**Courtyard Irvine** - Ph: 949-757-1200

2701 Main St., Irvine, CA 92614

### Thanks to Major Sponsor:



September 17-19, 2019

Membrane Plant Operator Training
MOC-II: Advanced Training of RO & NF Systems

REGISTRATION FORM

Southwest Membrane Operator Association (SWMOA)

PHONE: 888-463-0830 EMAIL: support@swmoa.org WEB: www.swmoa.org
1035 East Vista Way, #103, Vista, CA 92084

Name: Title:
Company:
Mailing Address:
City: State: Zip:
Phone: Cell:
E-mail: Website:
Billing Contact Name: Email: Phone:

Special Needs:
Food Allergies (provide specifics below)
Gluten Free
Halal Meals
Paleo Meals
Vegan Meals
Vegetarian Meals
Wheelchair Access
Other:

Please refer to SWMOA's Privacy Policy if you have any questions regarding your preferences.

Need Contact Hours: State: License Type: Grade/ Level (i.e., 1, 2): Lic.#:

SWMOA MOC-II: (See Program Information Page) Limited to 30 Attendees\*

Students must have attended a basic water class (or equivalent) or be working as an employee of a W/WW Public Agency, an Industrial W/WW User or Water Supplier to End Users to attend this course:

(Non-Licensed Operators with water class attendance who pass the Exam are not eligible to receive a Membrane Operator Certification)

Non-Members - contact SWMOA to become a member prior to registering for this Training

\*Registration and Payment must be received to prior to event date: (No Exceptions)

Amount

Table with 2 columns: Description (SWMOA Members, Non-Members, Exam) and Amount (\$450, \$525, \$25)

(to be certified, exam is required and exam fee is not included with registration fee)

Total Registration Fee \$

If you are not a SWMOA Member, please Click Here to join, prior to registering

\*Limited Space - Registration Reserved ONLY Upon Receipt of Payment & Availability

The registration fee includes CEUs/PDHs, the shipment of the MOC Manual to the address listed above upon receipt of full payment. If an alternate address for shipment is requested, please provide the preferred shipping address by calling SWMOA at 888-463-0830. For payments received within five (5) business days of the school, the MOC Manual will be provided on the first day of class.

PAYMENT METHOD:

Payable to: Southwest Membrane Operator Association
Mail to: 1035 East Vista Way #103, Vista, CA 92084-4606

Check Enclosed for \$ Please Invoice

For Security Purposes, SWMOA encourages you to use the Easy Online Registration. Secure Credit Card and eCheck Payment Processing is Now Available at: www.swmoa.org

Cancellations/Refunds...

Written cancellation requests received at least 14 days before a scheduled event will receive a refund, less a \$50 administrative processing fee. If a MOC Handbook was mailed, this will be processed after return of unaltered Handbook to SWMOA office. Without the return receipt of the unaltered MOC Handbook the cancellation fee will be \$200 (includes administrative processing fee and handbook fee). Full payment is required if the request is received less than 14 days of the scheduled event and no refund will be available. A substitution of the registrant may be made any time without cost up to the date of the event. SWMOA reserves the right to make changes to the scheduled event including but not limited to changing the event location, scheduled date(s), program and speakers, or to cancel the event in its entirety when conditions beyond its control prevail. If the event is cancelled, SWMOA's liability is limited to providing a full refund of the fees paid toward the scheduled event.