

America's Authority in Membrane Treatment



Improving America's Waters Through Membrane Treatment and Desalting



Sept. 15-17, 2014

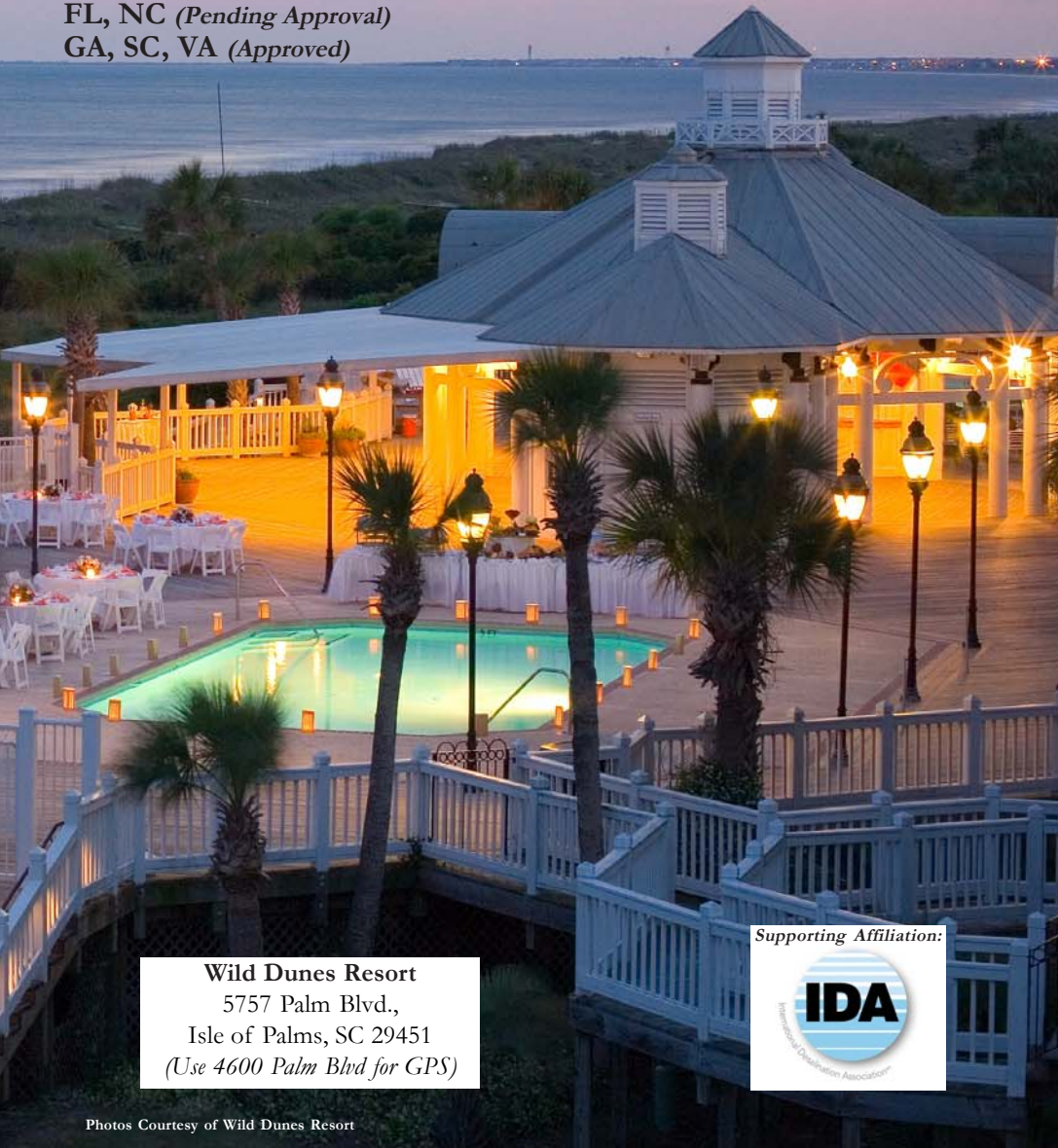
# Technology Transfer Workshop

“The Lowdown on Membranes  
in the Low Country”

Contact Hours /PDHs (Water/Wastewater):

FL, NC (*Pending Approval*)

GA, SC, VA (*Approved*)



**Wild Dunes Resort**  
5757 Palm Blvd.,  
Isle of Palms, SC 29451  
(Use 4600 Palm Blvd for GPS)

Supporting Affiliation:



# PROGRAM SCHEDULE

## Monday, Sept. 15th

- 3:00 - 5:00 Exhibitor Set-Up  
3:00 - 5:00 Early Registration




## Tuesday, Sept. 16th

- 8:00 - 8:45 **Registration & Continental Breakfast**
- 8:45 - 9:00 **Introductions & Opening Remarks**  
David M. Laliberte & Bob W. Oreskovich, Workshop Co-Chairs
- 9:00 - 12:00 **SESSION 1: MF/UF/NF/RO Membrane Processes**  
Moderator: David M. Laliberte, Hazen and Sawyer, P.C.
- 9:00 - 9:45 **MF/UF/MBR Technologies**  
Mark C. White, P.E., CDM Smith, Inc.
- 9:45 - 10:15 **NF/RO Basics**  
Denis Guibert, Ph.D., P.Eng., H2O Innovation
- 10:15 - 10:45 **Refreshment Break**
- 10:45 - 11:15 **Differences in MF/UF & NF/RO Membrane Properties**  
Harold G. Fravel, Jr., Ph.D., American Membrane Technology Association
- 11:15 - 12:00 **Plant Overview - Mt. Pleasant Membrane Treatment Plants**  
Jim Ouellet, Mount Pleasant Waterworks
- 12:00 - 1:00 **Lunch**
- 1:00 - 4:00 **SESSION 2: Plant Overview & Two Plant Tours**  
Moderator: Bob W. Oreskovich, H2O Innovation
- 1:00 - 1:30 **Plant Overview - Isle of Palms Forest Trails Membrane Bioreactor (MBR) Plant**  
Bill Jenkins, Isle of Palms Water & Sewer Commission
- 1:30 - 2:00 **On Bus In Route to Facility Tour**
- 2:00 - 2:50 **Facility Tour - Mount Pleasant**  
Jim Ouellet, Mount Pleasant Waterworks
- 2:50 - 3:10 **On Bus In Route to 2nd Facility Tour**
- 3:10 - 4:00 **Facility Tour - Isle of Palms Forest Trails Membrane Bioreactor (MBR) Plant**  
Bill Jenkins, Isle of Palms Water & Sewer Commission
- 4:00 - 4:30 **On Bus In Route back to Hotel**
- 5:00 - 9:00 **Fun Event: Golf Putting Challenge & Low Country Boil**

**Special Thanks**  
to Fun Event Sponsor:

**HAZEN AND SAWYER**  
Environmental Engineers & Scientists

 **Kimley-Horn**  
and Associates, Inc.



# PROGRAM SCHEDULE

## Wednesday, Sept. 17th

- 8:00 - 8:30** Continental Breakfast
- 8:30 - 12:00** **SESSION 3: Case Studies**
- Moderator: Chris A. Owen, Tampa Bay Water
- 8:30 - 9:00** **25 years of Membrane Treatment on the NC Outer Banks**  
Ian C. Watson, P.E., ROSTEK & Associates, Inc.
- 9:00 - 9:30** **Various Membrane Solutions for Different Applications in the Northeast**  
Ben Movahed, P.E., BCEE, WATEK Engineering Corporation
- 9:30 - 10:00** **Hilton Head-South Island Public Service District-Case Study**  
Julie E. Nemeth-Harn, P.E., Harn R/O Systems, Inc.
- 10:00 - 10:30** Refreshment Break
- 10:30 - 11:00** **Pre- & Post-Treatment of Coastal Membranes Salt Water**  
Tom F. Seacord, P.E., Carollo Engineers, Inc.
- 11:00 - 11:30** **Water Treatment Options for Coastal Communities to Meet the Stage 2 DBP Rule**  
Anthony Colon, Cape Fear Public Utility Authority & David S. Briley, P.E., Hazen and Sawyer, P.C.
- 11:30 - 12:00** **Optimizing Removal of Scalants and Foulants during Membrane Cleaning**  
Mo Malki, American Water Chemicals, Inc.
- 12:00 - 1:00** Lunch
- 1:00 - 3:00** **SESSION 4: Concentrate Disposal/Regulatory Issues on the Mid-Atlantic Coast**
- Moderator: Jarrett K. Kinslow, P.E., TetraTech, Inc.
- 1:00 - 1:30** **Membrane Concentrate Disposal in Coastal Carolina**  
John E. Potts, P.E., Kimley-Horn & Associates, Inc.
- 1:30 - 2:00** **Dixon, North Carolina-Onslow County Water and Sewer Authority-Case Study**  
Erica Carter, P.E., Kimley-Horn & Associates, Inc.
- 2:00 - 2:15** Refreshment Break
- 2:15 - 2:45** **RO Concentrate Recovery and Waste Minimization (ZLD)**  
Arnab Hanra, Doosan Hydro Technology, LLC
- 2:45 - 3:00** **Workshop Wrap-Up**  
David M. Laliberte, Workshop Co-Chair
- 3:00 - 9:00** **AMTA Board Meeting**



## Thank You Major Sponsors:



### Lunch:

Hydranautics - Nitto Group Company  
Harn R/O Systems, Inc.  
Ruby-Collins General Contractors, Inc.

### Breakfast:

Toray Membrane USA, Inc.

### Break:

Aerex Industries, Inc.  
WATEK Engineering Corporation

# PROGRAM INFORMATION

## WHAT YOU WILL LEARN

This AMTA-SEDA Technology Transfer Workshop will focus on the application of membrane technologies in the Low Country Region. Attendees will learn about MF/UF/NF/RO Membrane Processes, Differences in Membrane Properties, Pre- & Post-Treatment, Membrane Concentrate Disposal and the meeting will feature several Membrane Case Studies. Also, there will be an overview and tours of the Mount Pleasant Membrane Treatment Plant and the Isle of Palms Water Treatment Facility.

## TABLE TOP EXHIBITS (Table Top Backdrops Only)

Each Table Top Booth will cost \$700 for Members  
*(must be a Division 1 or 2 member to exhibit).*

## ALL EXHIBIT SPACES WILL BE SELECTED ON-SITE ON A FIRST COME/FIRST SERVED BASIS

### All Table Top Exhibitors will receive:

- One 6' Table (Chairs are available upon request)
- One full attendee registration to the Workshop
- List of attendees sent via e-mail two weeks prior
- Acknowledgement in the attendee materials - 100 word company description  
- please e-mail: [regassist@amtaorg.com](mailto:regassist@amtaorg.com)
- Sign recognition during the program
- Electricity is available from the Hotel for an additional fee



## SPONSORSHIP OPPORTUNITIES

Our objective is to provide education for our members and others based on current and evolving water treatment issues and technologies. Sponsorship of this AMTA/SEDA program makes it possible for the industry to deliver its experienced perspective on the nation's water supply in a concerted manner. Please consider sponsorship of this workshop.

### All Sponsors will receive:

- List of attendees sent via e-mail two weeks prior
- Acknowledgement in the attendee materials - 100 word company description  
- please e-mail: [regassist@amtaorg.com](mailto:regassist@amtaorg.com)
- Company promotional item giveaway  
- Please submit your giveaway item to be given to attendees during sign-in
- Sign recognition during the program



# REGISTRATION INFORMATION

## Wild Dunes Resort

5757 Palm Blvd., Isle of Palms, SC 29451  
(Use 4600 Palm Blvd for GPS)

A group rate of **\$149 for guest rooms (single/double)** has been negotiated for this program for reservations made by **Aug. 22, 2014** (subject to availability). Make hotel arrangements directly with Wild Dunes Resort: **800-845-8880** and refer to AMTA for discounted rate. Shuttles are available from Charleston International Airport for a fee. Complimentary shuttle service within the Resort is available 7 a.m. - 11 p.m. The AAA Four Diamond-rated Boardwalk Inn combines the classic elegance of Charleston and the casual atmosphere of the islands.



### From Charleston International Airport (CHS):

Take I-526 E, Head northeast on International Blvd. toward Dreamliner Dr. Make a U-turn at Dreamliner Dr. Turn left to merge onto I-526 E toward Mt Pleasant. Follow I-526 E. Take exit 29 from I-526 E. Merge onto I-526 E. Take exit 29 for US-17 N toward Georgetown.

Take SC-517 S/Isle of Palms Con to Palm Blvd in Isle of Palms. Make a slight left toward Hungry Neck Blvd. Continue straight onto Hungry Neck Blvd. Turn right onto SC-517 S/Isle of Palms Con. Turn left onto Palm Blvd and turn right to stay on Palm Blvd.



## Transportation

**Avis Rent-A-Car** discounted rates are available. To participate, call Avis at **800-331-1600**. Reference **Account No. T284899**.

## Each Participant Receives

Conference materials, facility tours, networking event, refreshment breaks, lunch each day, and certificate of attendance. Tuition does not include lodging or other meals.

All registration fees must be paid prior to the program. On-site registration will be accepted with payment.

## Cancellations and Refunds

Written cancellation requests received by AMTA-SEDA on or before Aug. 29, 2014 will receive a refund, less a \$50 processing fee. Full payment is required if cancellation is received on or after Aug. 30, 2014 - no refunds and no credits for future events will be granted. However, substitutions may be made at any time. AMTA-SEDA reserves the right to make changes in programs and speakers, or to cancel programs when conditions beyond its control prevail. Every effort will be made to contact each enrollee if a program is cancelled. If a program is not held, AMTA-SEDA's liability is limited to the refund of the program fee only.

## REGISTER EARLY AND SAVE

### How to Register:

**PHONE: 772-463-0820**

**FAX: 772-463-0860**

**EMAIL: [regassist@amtaorg.com](mailto:regassist@amtaorg.com)**

**WEB: [www.amtaorg.com](http://www.amtaorg.com)**

# SEPT. '14 - REG. FORM

**American Membrane Technology Association (AMTA)**  
**PH: 772-463-0820 ♦ FAX: 772-463-0860 ♦ E: regassist@amtaorg.com**  
**2409 SE Dixie Hwy. ♦ Stuart, FL 34996 ♦ www.amtaorg.com**

Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Ph: \_\_\_\_\_ Cell: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_ Website: \_\_\_\_\_

Member (check all that apply):  AMTA  IDA  SEDA  SCMA  SWMOA  NWMOA

**2-Day Workshop: (See Program Information Page)**

Registration & Payment must be received by:	Aug. 29th	On/After Aug. 30th	Amount
Members/Affiliates (must be from the list above)	\$300	\$400	
Members/Affiliates (from the list above, Div. 1 or 3c)	\$250	\$350	
Non-Members	\$400	\$500	
Speaker/Moderator/Operator/State Regulator	\$150	\$250	
Full-Time Student/Retired	\$ 75	\$100	
Guest/Spouse Tues. Networking Fun Event:	\$ 35	\$ 35	
Cannot Attend - Purchase CD Only:	\$ 30	\$ 30	
Need Contact Hours Certification:	\$ 25	\$ 25	

License Type: \_\_\_\_\_ License Class (i.e., 1, 2, 3, or 4): \_\_\_\_\_  
 State: \_\_\_\_\_ License #: \_\_\_\_\_

**Exhibit-Table Top:**  \$700 (must be a div. 1 or 2 member to exhibit)

Spaces are selected onsite - first come, first served

**Sponsor:**  Major: \$1,000  Fun Event: \$1-3,000  Lunch: \$750  
 Breakfast: \$500  Break: \$350

Total Registration Fee \$ \_\_\_\_\_

Check Enclosed  Invoice  Visa  M/C  AX

Card # \_\_\_\_\_ + \_\_\_\_\_  
 (16 #'s + 3 #'s listed in signature area on back of Visa/MC or + 4 #'s on front of AX)

Name on CC: \_\_\_\_\_  
 Exp. Date: \_\_\_\_\_  
 CC Mailing Address: \_\_\_\_\_  
 CC Mailing Zip: \_\_\_\_\_  
 Signature \_\_\_\_\_

**Special Needs:**  
 Wheelchair Access  
 Visually Impaired  
 Hearing Impaired  
 Vegetarian Meals  
 Other \_\_\_\_\_

**I will attend the following functions, which are included in the registration fee:**  
**Facility Tours** Tues., Sept. 16 - 1:30-4:30 p.m.  Yes  No  
**Networking Fun Event** Tues., Sept. 16 - 5:00-9:00 p.m.  Yes  No



Non-Profit Org.  
 U.S. Postage  
 PAID  
 West Palm Beach FL  
 Permit #2085