Get ready for two intensive days...

Please join WERF colleagues, subscribers, and researchers in Florida this year, for our fourth research forum. We will look back over the past year, hear what’s happening now, and explore future challenges faced by the wastewater and stormwater communities.

Reviewing the progress made in 2008, researchers will present results, new products, and tools developed as a result of cutting edge research.

For those looking for an early peek at ongoing research, this meeting provides a unique opportunity to hear the current status of WERF projects. Researchers will present their work, and you will have many opportunities to provide feedback based on practical experience and managerial strategies in your agencies and companies.

With an eye to the future, forum participants will explore new challenges on the horizon, to initiate potential collaborative approaches to those challenges.

We’re covering a lot in two days...but there’s a lot to talk about!

RESEARCH IN ACTION

WERF subscribers will discuss specific research projects that they have either participated in or utilized. The discussions will involve municipal, industrial, and state perspectives. Facility managers will focus on their day-to-day issues and will describe how WERF research helped them address their challenges.

This is also a great opportunity to hear about issues that are important in Florida, and how WERF research can practically contribute to the decision-making process in all facilities.

CONFERENCE TOPICS

- Asset Management
- Climate Change
- Conveyance Systems
- Decentralized Systems
- Infrastructure Security
- Nutrient Removal
- Risk Communications
- Trace Organic Compounds
- WERF Tools
### Monday, December 1

3:00 – 6:00 pm  **REGISTRATION**

### Tuesday, December 2

7:00 am – 5:00 pm  **REGISTRATION**

7:00 – 8:00 am  **BREAKFAST**

8:00 – 8:30 am  **WELCOME**

- *Alan H. Vicory, Jr.,* Ohio River Valley Water Sanitation Commission, Cincinnati, OH
- *Daniel M. Woltering, Ph.D.*, Director of Research
  Water Environment Research Foundation

8:30 – 10:00 am  **PLENARY SESSION**

**WERF RESEARCH UPDATE AND HIGHLIGHTS ON TRACE ORGANIC COMPOUNDS**

Join a panel of experts as they discuss the issues surrounding trace organic compounds and their impact on the water quality community. This session will cover the contributions of household chemicals to sewage, the fate of pharmaceuticals and personal care products (PPCPs) during wastewater treatment, and communications with interested stakeholders. The session will also include a discussion of the fate of estrogenic compounds during sludge processing.

**MODERATORS:**

- *Lola Olabode, M.P.H.*, Senior Program Manager, WERF
- *Robert Arnold, Ph.D., P.E.*, University of Arizona, Tucson, AZ

**SPEAKERS:**

- *Jorg E. Drewes, Ph.D.*, Colorado School of Mines, Golden, CO
- *Joan Oppenheimer, M.S.P.H.*, MWH, Arcadia, CA
- *Kathleen Esposito*, Metcalf and Eddy, Inc., New York, NY
- *Rula Deeb, Ph.D., BCEEM*, Malcolm Pirnie, Inc., Emeryville, CA

10:00 – 10:30 am  **COFFEE BREAK**

10:30 – 11:30 am  **PLENARY SESSION**

**RISK COMMUNICATIONS AND EFFECTIVE MESSAGE DELIVERY**

It is always important to communicate effectively with customers, but increased media coverage of wastewater treatment and solids management makes it more important than ever. WERF’s research on trace organics and on biosolids pathogens risk will serve as touchpoints for an in-depth discussion of communication principles and public perception. The speakers will present expert observations on effective risk communication practices. As a bonus, the session will provide an overview of the risk communications model that is guiding WERF’s biosolids research.

**MODERATOR:**

- *Alan Hais, P.E. BCEE*, Program Director, WERF

**SPEAKERS:**

- *Edward Means*, Malcolm Pirnie, Inc., Irvine, CA
- *Sarah Thorne*, Partner, Decision Partners LLC, Toronto, Canada
Tuesday, December 2 continued

11:30 am – 1:00 pm  LUNCH ON YOUR OWN

1:00 – 2:00 pm  PLENARY SESSION
THE LATEST RESEARCH ON CONVEYANCE SYSTEMS
With millions of miles of aging pipe below our streets, inspection and maintenance is a high priority for most wastewater agencies. This session will address three of today’s most pressing conveyance issues: grease interceptor design, odorous compound identification, and corrosive chemical formation. The session will also offer guidelines for inspection and assessment of ferrous and non-ferrous force mains.

MODERATOR:  
Lauren Fillmore, P.E., Program Director, WERF

SPEAKERS:  
Joel Ducoste, Ph.D., North Carolina State University, Raleigh, NC
James Thomson, Jason Consulting, Geneva, Switzerland

2:00 – 3:00 pm  BREAKOUT SESSIONS

BREAKOUT 1: COASTAL REGIONS ISSUES
Hear about key environmental issues and engage in discussions on climate change, marine discharges, and stormwater-related issues as they relate to the specific needs of coastal regions.

BREAKOUT 2: RIVERS/LAKES ISSUES
Learn about ongoing research on water quality standards, wet weather, monitoring, and other issues associated with water quality of our nation’s rivers and lakes.

BREAKOUT 3: WERF PATHOGENS RESEARCH
Get the latest information on the status of EPA’s revision of its recreational water quality criteria and the role of research in providing a scientific basis for EPA’s decisions. Give WERF your thoughts on research priorities for developing criteria and methods for inland flowing waters.

BREAKOUT 4: WERF BIOSOLIDS RESEARCH
Get involved with the ongoing implementation of a groundbreaking project: Applying Advances in Pathogen Risk Assessment to Land Application of Biosolids and Communicating the Results. Hear the researchers’ updates on the risk assessment and risk communications elements of the project, and then take part in a discussion about future direction and decisions.

3:00 – 3:30 pm  COFFEE BREAK

3:30 – 4:45 pm  PLENARY SESSION
WERF TOOLS “SAMPLER”
Add WERF’s latest tools to your toolbox. Designers will demonstrate four tools that save time and resources while improving productivity.

CleanWater Central:  This internet database provides detailed financial and technical information on more than 700 wastewater treatment facilities.

SPEAKER:  Jeff C. Moeller, P.E., Senior Program Director, WERF

BMP Screening Tool:  This tool helps determine the effectiveness of stormwater best management plans (BMPs) in reducing pollution loads to receiving waters. It also examines associated whole life costs.

SPEAKERS:  Christine A. Pomeroy, Ph.D., P.E., University of Utah, Salt Lake City, UT
Larry A. Roesner, Ph.D., P.E., DEE, Colorado State Univ., Fort Collins, CO
Tuesday, December 2 continued

**Emergency Communications with Your Local Government and Community (eCIMS):** This interactive CD-ROM helps users build and manage a customized emergency communications plan for virtually any kind of emergency. The session will feature three scenarios applicable to the water quality community.

**SPEAKER:** Lola Olabode, M.P.H., Senior Program Manager, WERF

**Benefit-Cost Analysis for Biosolids Management Options:** This interactive, computer-based tool helps you incorporate a triple bottom line approach in biosolids management.

**SPEAKER:** Robert Raucher, Ph.D., Executive V.P., Stratus Consulting, Boulder, CO

Note: Demonstration sessions will follow the general overview session

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<tr>
<th>Session 1:</th>
<th>5:00 – 5:45 pm (Four breakouts, one for each tool)</th>
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<td>Session 2:</td>
<td>5:45 – 6:30 pm (Repeat Session 1. Participants explore a second tool of their choice)</td>
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4:45 – 5:00 pm **WRAP-UP OF DAY 1**

6:30 – 8:00 pm **RECEPTION**

**Wednesday, December 3**

7:30 – 8:30 am **BREAKFAST**

8:30 – 8:45 am **WELCOME**

Glenn Reinhardt, Executive Director
Water Environment Research Foundation

8:45 – 10:00 am **PLENARY SESSION**

**ENERGY – WATER CYCLE AND ADAPTING TO CLIMATE CHANGE**

In the face of a changing climate, wastewater treatment plants are exploring ways to improve energy sustainability, optimize treatment processes, and mitigate their carbon footprint. WERF and its international partners present best practices for optimizing your treatment processes. You’ll also be treated to a case study of a European treatment facility that has achieved 100% energy self-sufficiency.

**MODERATOR:** Lauren Fillmore, P.E., Program Director, WERF

**SPEAKERS:**

Steve Whipp, United Utilities, Warrington, UK
George Crawford, CH2M HILL, Toronto, Canada
Movva Reddy, Ph.D., P.E., MPR Engineering Corporation, Inc., Longwood, FL

10:00 – 10:30 am **COFFEE BREAK**
### Wednesday, December 3 continued

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<th>10:30 am – 12:00 pm</th>
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<td><strong>SUSTAINABLE WATER MANAGEMENT USING DECENTRALIZED TECHNOLOGIES AND DESIGNS</strong>&lt;br&gt;From green buildings to low-impact development, decentralized systems are an effective option for creating sustainable infrastructure. Learn more about how designers are integrating the decentralized principles into traditional water management and examine innovative treatment systems that mimic and work with nature.&lt;br&gt;&lt;br&gt;MODERATOR: <strong>Jeff C. Moeller, P.E.,</strong> Senior Program Director, WERF&lt;br&gt;SPEAKERS: <strong>Valerie I. Nelson, Ph.D.,</strong> Coalition for Alternative Wastewater Treatment, Gloucester, MA&lt;br&gt;<strong>Edward A. Clerico, P.E., LEED AP,</strong> Alliance Environmental LLC, Hillsborough, NJ&lt;br&gt;<strong>Victor A. D’Amato, P.E.,</strong> Tetra Tech, Inc., Ashburn, VA&lt;br&gt;<strong>Todd A. Danielson, P.E., BCEE,</strong> Loudoun Water, Ashburn, VA&lt;br&gt;<strong>Glen T. Daigger, Ph.D., P.E., BCEE, NAE,</strong> CH2M HILL, Englewood, CO&lt;br&gt;<strong>George Tchobanoglous, Ph.D., P.E.,</strong> Tchobanoglous Consulting, Davis, CA</td>
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| 12:00 – 1:00 pm | LUNCH (Provided)<br><br>CHALLENGE CAFÉ: Discuss specific topics during lunch with other forum participants. |

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<td><strong>RECENT ADVANCES AND KEY QUESTIONS IN NUTRIENT REMOVAL</strong>&lt;br&gt;Get the latest information on WERF research on nutrient removal. Researchers will discuss their progress in several areas: assessing low phosphorus analytical measurement and reliability; evaluating alternative external carbon sources in the denitrification process; and examining biodegradability of dissolved organic nitrogen in wastewater effluents. They will also discuss ongoing research on greenhouse gas nitrogen emissions from advanced wastewater treatment plants.&lt;br&gt;&lt;br&gt;MODERATOR: <strong>Amit Pramanik, Ph.D., BCEEM,</strong> Senior Program Director, WERF&lt;br&gt;SPEAKERS: <strong>JB Neethling, Ph.D., P.E., BCEE,</strong> HDR, Inc., Sacramento, CA&lt;br&gt;<strong>Kartik Chandran, Ph.D., P.E.,</strong> Columbia University, New York, NY</td>
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<td><strong>ASSET MANAGEMENT AND INFRASTRUCTURE SECURITY</strong>&lt;br&gt;Get the latest information on asset management, cyber security, and emergency preparedness with an overview of three innovative tools: Sustainable Infrastructure Management Program Learning Environment (SIMPLE), a tool for water sector operations; a SCADA-based tool for reducing cyber vulnerabilities; and SewerNet, an emergency preparedness tool that analyzes potential hazardous events and their consequences. SewerNet offers an important first step for safeguarding against chemical, biological, and radioactive contamination.&lt;br&gt;&lt;br&gt;MODERATOR: <strong>Roy Ramani, Ph.D.,</strong> Program Director, WERF&lt;br&gt;SPEAKERS: <strong>Duncan Rose,</strong> GHD, Inc., Charlotte, NC&lt;br&gt;<strong>Candace Sands, Ph.D.,</strong> EMA, Inc., Trevose, PA&lt;br&gt;<strong>William Samuels,</strong> Science Applications International Corporation, McLean, VA</td>
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| 3:00 – 3:30 pm | COFFEE BREAK |

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<td><strong>WERF RESEARCH IN ACTION</strong>&lt;br&gt;Science must be usable to be of value. Hear about some of the practical applications of research as WERF subscribers share their experiences in projects that have benefitted their organizations and others throughout the United States.</td>
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| 4:45 – 5:00 pm | WRAP-UP AND ADJOURN |
**REGISTRATION**

Registration is free to all employees of WERF subscribing organizations.

**E-MAIL:** Contact Gina Street at gstreet@werf.org

**ONLINE:** Register online at www.werf.org

**PHONE:** Contact Gina Street at (703) 684-2470, ext. 7913. Be sure to leave a detailed message to ensure your registration.

You will receive confirmation of registration notice by e-mail.

**HOTEL RESERVATIONS**

Clearwater Beach Marriott Suites on Sand Key
1201 Gulf Boulevard, Clearwater Beach, FL 33767
Telephone: (727) 595-1100
Fax: (727) 595-4292
Reservations: (888) 303-4428

WERF meeting room rates: $139/night single or double (including nights before and/or after meetings)

For hotel reservations, call (888) 303-4428 and request the Water Environment Research Foundation room block. Please make your hotel reservations as early as possible. The cut-off date for the special WERF rate is Sunday, November 2. WERF cannot guarantee this discounted rate after this date.

**HOTEL PARKING**

Complimentary on-site parking
Valet parking: $12 per day

**TRANSPORTATION**

**FROM TAMPA INTERNATIONAL AIRPORT (TPA)**

Driving directions: Accessible via FL-60 West to Clearwater. Take 3rd roundabout exit, continue on Coronado Drive, and curve right onto Hamden Drive. Turn left on S. Gulfview Blvd./FL 699. Turn slightly to the right onto Gulf Blvd. and over bridge. Hotel is on the left. Distance: 23 miles.

Super Shuttle: For reservations, call (800) 282-6817 or (727) 572-1111. Online, go to www.supershuttle.com. Estimated cost: $25 one way (per person)

Taxi: Approximately $50 one way

Car Rentals: Available at onsite and offsite car rental counters.

**FROM ST. PETERSBURG-CLEARWATER INTERNATIONAL AIRPORT (PIE)**

Driving directions: Take 686 West/Roosevelt Blvd. Turn right onto Gulf Blvd. Hotel is on the right. Distance: 12 miles.

Super Shuttle: For reservations, call (800) 282-6817 or (727) 572-1111. Online, go to www.supershuttle.com. Estimated cost: $52 one way (per person)

Taxi: Approximately $40 one way

Car rentals: Available at onsite car rental counters.

Note: Hotel does not provide shuttle service from either airport.

Note: Agenda is subject to change.

**ADDITIONAL TRANSPORTATION OPTIONS**

**AMTRAK – ST. PETERSBURG/CLEARWATER**


**GREYHOUND BUS STATION**

Directions to hotel: Head west on Gulf to Bay Blvd./FL-60W toward Hampton Road. Continue to follow FL-60W. Enter next roundabout and take 4th exit onto Coronado Drive. Turn right onto Hamden Drive. Turn left onto S. Gulfview Blvd. Take slight right onto Gulf Blvd./Clearwater Pass Avenue. Continue to follow Gulf Blvd. Distance: 9 miles.
Clearwater Beach, FL
December 2-3
Marriott Suites on Sand Key

Registration Deadline:
November 21

2008

WERF
Water Environment Research Foundation
Collaboration. Innovation. Results.
635 Slaters Lane, Suite 300
Alexandria, VA 22314-1177