Virginia Teams Sweep Operations Challenge

Topping off two days of intense competition, Terminal Velocity of the Virginia Water Environment Association (WEA) took the top Division 1 honors yesterday in Operations Challenge 2013. Team HRSD of the Virginia WEA placed first in Division 2. It was standing room only as attendees watched 41 teams compete in yesterday’s three timed events.

“Not only was there an overflow of spectators watching many of the events,” said Operations Challenge Committee Chair John Trofatter, “but we made room for one more team after the 40 allotted spaces were sold out.”

See more photos on p. 4

.contents

3 Taking It to the Limit
3 WEF Awards
3 ‘Wipe Out’ Session
3 WEFTEC by the Numbers
4 Value of Water Campaign
4 Operations Challenge
4 Paul L. Busch Award
6 What’s Happening Today?
6 Heard at WEFTEC
7 #Shoutout
8 Here and There
8 WEFTEC Word Hunt
9 WEF Student Winners
9 WEF Board of Trustees
10 Spot the Croc
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The past few years have brought extreme weather events and unprecedented damages, which are a strong reminder to the water sector of how important it is to be prepared. A variety of planning perspectives will be presented in today’s technical session, “Extreme Engineering Planning: Expecting the Unexpected,” to help utilities prepare for expected climate swings as well as other disruptive events. Presentations will focus on best practices in emergency planning and plant security, adaptation strategies, and tools for utilities. In addition, attendees will hear about DC Water’s emergency preparedness strategy for the presidential inauguration, as well as wastewater pipeline guidelines being adapted in the wake of the 2011 Japan tsunami.

Technical Session 523, “Extreme Engineering Planning: Expecting the Unexpected,” 8:30 a.m. – 12 p.m., McCormick Place, Room S406b.

The 15-ton “fatberg” that recently clogged a London pipeline raised public awareness about the ramifications of allowing fats, oils, and grease and disposable wipes into the sewer system. This afternoon, utilities, consultants, and manufacturers will delve into the wipes’ side of the equation in the session, “Wipe Out: Reducing the Burden of Wipes in the Pipes.”

The session will cover flushables, dispersibles, and nonflushables from a variety of perspectives. Presentation topics include the new Association of the Nonwoven Fabrics Industry guidelines, research and testing done by utilities, the cost of clogs, and insights from both equipment and wipes manufacturers.

Attendees also will hear how the different organizations have been working together and what the next steps will be on a national level. The session will conclude with a panel discussion.


Editorial
Melissa Jackson, Arthur Patterson, Cathy Chiang, Jennifer Fulcher, Lori Harrison, Steve Spicer, LaShell Stratton-Childers, Kristina Twigg

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Coalition Launches Educational Campaign
Public and private organizations join forces to promote value of water

An exciting new public education initiative was presented at a number of WEFTEC 2013 events including the House of Delegates meeting, Member Association Leadership Day, and Public Communications and Outreach Committee. The Value of Water campaign — launched Oct. 1 by the Value of Water Coalition, is designed to inform Americans about the value of water and the challenges facing our water infrastructure.

“While a majority of Americans believes clean water is of vital importance to the nation, just 40% of Americans think the same of water infrastructure, showing the clear disconnect this campaign aims to fix,” said Eileen O’Neill, interim executive director of the Water Environment Federation (WEF). “Because much of our water system lies unseen underground, there is an awareness gap among the public that needs to be overcome in order to drive the support necessary to institute real and much-needed change.”

The campaign, which at first will be primarily digital, will leverage content-generation and social sharing. The website, www.thevalueofwater.org, serves as the campaign’s central hub, aggregating the latest news and information on water-related issues. This information is then distributed through the Value of Water social channels. Also, new content and information about water and water infrastructure in our daily lives will be regularly distributed online through videos, infographics, and SlideShare decks.

The Value of Water Coalition comprises some of the leading water businesses and nonprofits. In addition to WEF, current members include American Water, American Water Works Association, Association of Metropolitan Water Agencies, CH2M HILL, MWH Global, National Association of Clean Water Agencies, National Association of Water Companies, United Water, U.S. Water Alliance, Veolia Water, and Xylem Inc.

Chul Park Receives 2013 Paul L. Busch Award

The Water Environment Research Foundation (WERF) has recognized Chul Park as the winner of the 2013 Paul L. Busch Award. The annual award, which carries a $100,000 grant to support and promote work to benefit the water quality community and the water-using public, was given yesterday at WERF’s annual subscriber luncheon.

Park, an associate professor in the Department of Civil and Environmental Engineering at the University of Massachusetts–Amherst, seeks to demonstrate the ability to treat waste-water with low oxygen requirements and to efficiently collect biomass that can be anaerobically digested to generate methane. Leveraging current research with the Busch Award, Park will seek to explain the mechanism of biogranulation of algae and bacteria, investigate the enhanced nitrogen removal using an algal-sludge granule process, and study anaerobic digestion of the harvested algal-sludge granule.

Park and his research group developed a novel biogranule, an algal-sludge granule that flocculates and settles very well. The granule is composed of algae and bacteria within one granular biomass and can be naturally formed in the wastewater treatment process. The cohabitation of algae and bacteria within that granule enables a consistent, efficient symbiotic process. It is possible that the successful application of this biogranule technique may provide an alternative to the activated sludge process for secondary treatment and biological nutrient removal.

Among other reasons, Award Selection Committee members favored this project due to its attention to matters beyond nutrients. This research seeks to provide information applicable to sustainability discussions such as the reduction of greenhouse gases, energy neutrality and energy generation, as well as carbon footprints.

Scenes From Operations Challenge
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What Was Your Best Educational or Training Experience This Week?

“Monday’s Stormwater Luncheon set the tone for the similarities and differences between stormwater and wastewater treatment and how agencies administer the processes.”

John McGaffigan
Greeley and Hansen
Alexandria, Va

“I come every year mostly for the exhibits so I can see and learn about new products and technologies. I also like to catch up with people in the industry.”

Jack Wang
Tianjin Chenxin
Environmental Protection
Beijing, China

What’s Happening Today?

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 a.m. – 3 p.m.</td>
<td>Exhibitor Registration</td>
</tr>
<tr>
<td>8:30 a.m. – 5 p.m.</td>
<td>Technical Sessions</td>
</tr>
<tr>
<td>9 a.m. – 5 p.m.</td>
<td>WEFTEC Exhibition Open</td>
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<tr>
<td>9 a.m. – 12 p.m.</td>
<td>Tour Thorn Creek Basin Sanitary District</td>
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<td>9 a.m. – 12:30 p.m.</td>
<td>Tour The City of Chicago’s Jardine Water Purification Plant</td>
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<td>9 a.m. – 1 p.m.</td>
<td>Tour Brookfield Zoo’s Seven Seas Water Treatment</td>
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<tr>
<td>10:30 a.m. – 12 p.m.</td>
<td>Operator Ingenuity Presentation</td>
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<td>1 – 5 p.m.</td>
<td>STORMWATER TOUR: Cermak Road-Blue Island Avenue Sustainable Streetscape Project</td>
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Wednesday Sessions at a Glance

- Denotes half-session

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:30 a.m. – 12:00 p.m.</td>
<td>Mobile Sessions</td>
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<tr>
<td>9:00 a.m. – 12:00 p.m.</td>
<td>524 Phosphorous Removal and Recovery</td>
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<td>9:00 a.m. – 12:00 p.m.</td>
<td>525 Instrumentation</td>
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<tr>
<td>9:00 a.m. – 12:00 p.m.</td>
<td>527 Large-Diameter Pipe Installation &amp; Rehabilitation</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>Technical Sessions</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>500 Emerging Issues and Innovative Approaches: Part 1 Sponsored by AEESP (Room S403b)</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>501 Experimental Secondary Treatment</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>502 Modeling Secondary Treatment: Non-Nutrient</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>503 Treatment of Food and Beverage</td>
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<td>10:00 a.m. – 12:00 p.m.</td>
<td>504 Industrial Applications of Anaerobic Treatment Processes</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>505 Nutrient Removal Success Stories</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>506 Current Research on Algae Wastewater Treatment</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>507 Ventilation and Odor Control in Collection Systems</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>508 Change Management: Workforce Strategies That Work</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>509 Highlights of the 2013 ISWA Water Wastewater and Automatic Controls Symposium</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>510 Thickening and Dewatering</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>511 Biosolids Management</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>512 UV Design, Operation, and Maintenance</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>513 Case Studies of Innovation in Pumping Stations</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>514 Stormwater in a Watershed Context</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>515 Stormwater Maintenance</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>516 U.S. EPA Recreational Criteria</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>517 Green Infrastructure in the Windy City and Bayou</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>518 Innovative Approaches to Water Quality Monitoring</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>519 The Water Resources Utility of the Future: A Pathway to Sustainability</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>520 Current Trends in Financing and Planning Effective CIP Projects</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>521 Applied Technologies for Reuse Treatment</td>
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<td>11:00 a.m. – 12:00 p.m.</td>
<td>522 Extreme Engineering Planning: Expecting the Unexpected</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>526 Innovation Pavilion Session</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>529 Stormwater Pavilion Session</td>
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</tbody>
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#Shoutout
Select social commentary about WEFTEC 2013

GovernorQuinn Pleased to welcome #WEFTEC13, the largest annual water quality forum, here to #IL http://tinyurl.com/psn66s4 @WEFTEC pic.twitter.com/Tlx3nQil16
ALWaterChief People within our industry have passion. We only need to give them permission & a little direction - Sue Murphy #WEFTEC13
LynnBroadus Bobby Kennedy gives kudos to @JeanetteBrown4 as an early innovator in nutrient removal #WEFTEC13 @WEFTEC
SB_AEC MT @WEFStormwater: Mayor Rahm Emanuel announces $50M commitment on green infrastructure over 5 yrs in Chicago #weftec13 #stormwater
mckimcreed A number of folks having success with small manageable projects with 3 to 7 year paybacks. Baby steps work! #WEFTEC
TGrimm13 And the winners of the first ever WEFTEC Bookshop quiz are...#teamawesome !!! #waytogo #teamnowsuperawesome #WEFTEC13 pic.twitter.com/oYrDR1xzjP
RAIhome @WEFTEC Discover your red ball/General Se/Kevin Carroll "Put a dream in front of people/ Not a mission/Missions are finite/ Dreams R forever
CleanWaterACWA Thousands @ #WEFTEC to hear IL Governor Quinn declare “water’s worth it” month! Gov’s mansion has rain barrels!
AndyRShaw2000 If we don’t innovate now we risk not meeting future challenges - Chew Men Leong #WEFTEC13
WEFTEC Word Hunt

Solution on p. 10.

See how many of the following words you can find in the grid below. Words may intersect and read across, down, and diagonally, both forward and backward. The remaining letters, when read from left to right, spell out a message for our readers.

AERATOR  EFFLUENT  LAGOON  MIXING TANK
BAR SCREEN  FILTER  LIME  REACTOR
BELT PRESS  FLOW  OSMOSIS  SIPHON
CAKE  FLUME  OZONE  SOLIDS
CENTRIFUGE  FLUX  PIPE  TROUGH
CLARIFIER  FORCE MAIN  POLYMER  UPFLOW
DIFFUSER  GRAYWATER  PUMP  VALVE
DRAIN  INFLOW  MEMBRANES  VORTEX

YESTERDAY'S PROGRAMMING FOR UTILITY LEADERS OFFERED MANY OPPORTUNITIES TO NETWORK AND LEARN, INCLUDING A "HOT TOPICS" BREAKFAST, THE POPULAR UTILITY EXECUTIVES FORUM, ABOVE, AND A NEW PROBLEM-SOLVING SESSION WITH SIMULTANEOUS ROUNDTABLE DISCUSSIONS.

Anirudh Jain, right, this year’s U.S. winner of the Stockholm Junior Water Prize, explains one of his WEFTEC poster presentations. Jain, whose project, “Sulfidation as a Novel Method To Reduce Toxicity of Silver Nanoparticle Pollution,” was awarded top honors at the U.S. national competition in June, was recognized Monday at the Opening General Session.

Here and There

YESTERDAY MORNING IN THE GLOBAL CENTER, ROBERT KENNEDY JR., ABOVE, DIRECTOR, OSTARA NUTRIENT RECOVERY TECHNOLOGIES, AND DAVID ST. PIERRE, EXECUTIVE DIRECTOR OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO, ANNOUNCED PLANS TO LAUNCH WHAT THEY SAID WOULD BE THE LARGEST NUTRIENT RECOVERY PROJECT IN THE WORLD.

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WEF Student Paper Competition Winners

Xuan Zheng, University of Pittsburgh (Pa.), won the Master’s Division of the WEF Student Paper Competition for her project, “Optimization of Treatment Options to Enable the Use of Acid Mine Drainage (AMD) for Hydraulic Fracturing in Marcellus Shale.”

Undergraduate Division winner Patrick LaBruzzi, San Jose (Calif.) State University won for his paper, “Algorithm for Hydraulic Energy Analysis Design Tool for In-Tank Spray Aeration Systems Designed for TTHM Reduction.”

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Last Chance to ‘Spot the Croc’!

You never know where you’ll see Niles the Crocodile, who has visited sessions and hosted events in the WEF Bookstore such as daily prize drawings and the first-annual Trivia Challenge, above right. Today is the last day to “Spot the Croc” in the WEF Bookstore and win a Kindle Paperwhite pre-loaded with a WEF e-book of your choice. The drawing will take place at 12:30 p.m. Congratulations to this week’s first two winners, Diego Calderon and Valerie Wollet.

WEFTEC Scramble Solution
From the Tuesday Issue of the Daily, p.10
1A: Carbon 1D: Chip
4A: Invite 2D: Reverse
6A: Grease 3D: Outfall
7A: Replug 5D: Berg

Final: Ops Challenge

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