MEMBRANE TECHNOLOGY

contents > FALL 2010



04 Synergy: The New Reality

Optimizing RO recovery with cyclic ion-exchange softening

06 Reuse in the Northeast

distribution systems

A sustainable approach to solving water supply challenges at the University of Connecticut

- 08 RO Cleaning Frequency: A Balance of Costs Economic analysis: A California groundwater replenishment system application
- 12 Beyond Conventional MBRs Oxygen transfer technology revolutionizing MBR applications
- 16 Managing Water Balance Using LSI to preserve an Arizona treatment plant's
- 18 Minimizing Disposal of a Reusable Resource A California utility's desalter brine and concentrate recovery permitting experience



ON THE COVER

Ultrafiltration membranes in action. (Photo courtesy of GE Power & Water.)

Scranton Gillette Communications 3030 W. Salt Creek Ln., Ste. 201, Arlington Heights, IL 60005-5025 tel: 847.298.6622 • fax: 847.390.0408 • wwdeditor@sqcmail.com • www.wwdmag.com

EDITORIAL STAFF

Editorial Director Neda Simeonova Managing Editor Caitlin Cunningham Associate Editor Flizabeth Lisican Associate Editor Rebecca Wilhelm Graphic Designer Robin Hicks

ADVERTISING & SALES

6900 E. Camelback, Suite 400 • Scottsdale, AZ 85251 tel: 480.941.0510 • fax: 480.423.1443

Integrated Media Consultant David Rairigh

drairigh@sgcmail.com (phone x25) Eric Smith Integrated Media Consultantr

esmith@sacmail.com (phone x14)

Integrated Media Consultant Fred Ferris

(Arlington Heights office, 847.391.1003) Integrated Media Consultant Brenda Yanez

byanez@sgcmail.com (phone x12) Integrated Media Consultant Lori Glenn

Regional Sales Managerp

Iglenn@sgcmail.com (phone x17) Michael Mansour

Classified Sales Manager

mmansour@sgcmail.com (phone x16) Donna Aly

daly@sgcmail.com (phone x13) Reprint Coordinator

Adrienne Miller

amiller@sgcmail.com (Arlington Heights office, 847.391.1036)

List Rental Contact Advertising Coordinator John Ganis

914 368 1024 Erica Rivera

erivera@sgcmail.com

(Arlington Heights office, 847.391.1049)

MANAGEMENT

Vice President/Publisher Dennis Martyka

dmartyka@sgcmail.com Associate Publisher Grea Tres

VP Custom Publishing & Creative Services VP Events

gtres@sgcmail.com Diane Voicanin Harry Urban

Circulation Director Director of Creative Services & Promotions

Mike Serino Sandi Stevenson

CORPORATE

Chairperson K.S. Gillette President/CE0 E.S. Gillette Sr Vice President A O'Neill Chairman Emeritus H.S. Gillette (1922-2003)

Reuse or



ater reuse applications increasingly are popping up across the globe, many applying membrane technology to put water once deemed a waste product to good use.

These new and redevelopment reuse projects range from small-scale to massive, from microfiltration to membrane

bioreactors, from graywater treatment in privately owned buildings to effluent treatment at municipal wastewater plants; the treated water may be used for irrigation, toilet flushing, industrial processes or groundwater replenishment, to name some practices.

The results of the earliest membrane/reuse projects are becoming clearer, and in many cases the numbers and enduser feedback convey success stories. These testimonials, coupled with the rising quality and declining costs of related technologies, indicate that the logical pairing of membranes and reclamation is here to stay.

For proof, look no further than this issue's article "Reuse in the Northeast" (see page 6), which profiles the University of Connecticut's recent efforts to reclaim water in order to ease demand on limited supplies. The sustainably minded university implemented microfiltration, ultraviolet disinfection and reverse osmosis to treat effluent to water fit for athletic field irrigation, cooling towers and to serve as boiler feedwater.

Together, projects like those outlined above can make a world of difference in our industry and beyond. They will help conserve potable water (nearly half the global population will live in water-stressed nations by 2015, according to the National Intelligence Council), protect watersheds and source water, control operational costs and educate the public about the value of clean water.

Finally, some of you may recognize me as managing editor of Storm Water Solutions and a regular editorial contributor on Water & Wastes Digest. I'll be the new face of Membrane Technology and look forward to delivering the membrane information you need to keep knowledgeable and competitive in today's water and wastewater market. Former managing editor Clare Pierson has relocated to begin a new life chapter; she will be missed, and we wish her all the best.

consein aunger Caitlin Cunningham, managing editor

ccunningham@sgcmail.com