



Water reuse and recycling potential are the topics of the September 17 meeting

In This Issue

2010 World Ag Expo Info.	2	Patrick T. O'Regan Jr. will be discussing water reuse. Some of the topics he will cover include: why this is increasingly important, what are the new technologies and solutions, and where are the potential business opportunities.
Water Technology Conference	2	O'Regan is currently the president and founder of Nobska Technologies, a company focused on water reuse technologies and solutions. He holds a B.A. in economics from Brown University, a J.D from Suffolk University Law School, an M.B.A from Trinity College Dublin, and an L.L.M. from the University of Edinburgh.
ICWT Strategic Analysis	2	
Land Use Conference Oct. 16	3	
Clean Energy & Water Tech Map	3	Following O'Regan will be Robert (Bob) Harper founder and CEO of KB Energy Technology. Harper holds a B.S. Degree from Pepperdine University and has 30 years of experience in the agricultural and industrial chemical industries. He is the owner and inventor of KB Energy LLC.
Improving Water & Energy Tech	3	
ICWT Pump Testing Begins	4	
June Meeting Wrap Up	4	KB Energy, LLC owns a new and innovative patent pending process to produce ethanol, methane, carbon dioxide and recycle water for non-potable uses from large dairy operations. A pilot plant operation is in the planning stage for installation on the campus of Fresno State late next year.

Water and energy conservation seminar to be held Sept. 15 in Fresno

Climate variability – whether it results in drought, floods, heat waves, or freezes – perhaps no single segment of the US economy is affected by changes in climate more than the \$297 billion agriculture industry. That's why it's so important for you to attend "Water and Energy Conservation: U.S. Department of Commerce Services for Agribusiness." This one-day seminar presented by the U.S. Department of Commerce (DOC) will help your organization learn about:

- Strategies for sustainability and economic growth
- Coming to terms with climate variability
- Climate data, services and program availability
- Enhancing global competitiveness, expanding market access, increasing exports
- Industry networking

ICWT is joining with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA),

and International Trade Administration (ITA) to bring this event to Fresno. The event will be held:

Tuesday, September 15, 2009
 Holiday Inn Downtown – Fresno, California
 8:00 am – 3:00 pm
 \$30.00 per person including luncheon

The DOC estimates that at least one-third of the U.S. Gross Domestic Product (GDP) is climate sensitive – a potential economic impact of \$4 trillion per year. Many U.S. businesses are already taking steps to factor climate and sustainability into their business planning – come and learn why it is important for your business too!

To register and for a detailed agenda or additional information visit www.icwt.net

World Ag Expo irrigation presenters abstract deadline September 11

The Irrigation Association and the Center for Irrigation Technology will once again be sponsoring irrigation-related seminars during the World Ag Expo in Tulare, California February 9-11, 2010.

The irrigation presentations will take place on Thursday, February 11, 2010. All Irrigation Association members are encouraged to submit presentations that will help expo

attendees irrigate more effectively and efficiently. A limited number of slots are available.

If you would like to participate, please go to the Irrigation Association www.irrigation.org or the CIT www.icwt.net website for abstract submission details. The deadline to submit a 200-word abstract is September 11, 2009.

2010 Water Technology Conference – May 11-12, 2010 *Where Water, Science & Technology Connect*

If you attended the inaugural Water Technology Conference or just wish you had, please plan on attending the 2010 event to be held May 11-12, 2010 at the Clovis Veterans Memorial Building in Clovis California.

Water, science and technology will again converge through a variety of technical seminars, poster presentations, networking opportunities and exhibits.

Join us at the conference that focuses on water technology innovations and science to help ensure future water supplies. An emphasis will be placed on water issues within the San Joaquin Valley region including agricultural, urban and municipal challenges and potential solutions.

Visit www.icwt.net for the latest conference information and to learn more about sponsorship and exhibitor opportunities.

Who should attend:

The 2010 Water Technology Conference, should be attended by anyone who is interested in water issues and the science and technology used to optimize a decreasing water supply in the San Joaquin Valley from Sacramento to Bakersfield and beyond. These interested parties include:

- Urban water purveyors
 - Water districts
 - Irrigation districts
 - Farmers
 - Irrigation technology manufacturers
 - Wastewater
 - Water-related and environmental researchers
 - Students interested in water and the environment
 - Government and legislative staff interested in water issues
- Issues

ICWT undergoing strategic analysis

The International Center for Water Technology (ICWT) is determined to rethink, reposition and renew itself after several years of success and international attention. ICWT is a public-private partnership dedicated to the development and application of advanced technologies that enhance water use for agricultural, environmental and urban purposes. It assists businesses with a wide range of professional services, including business planning, workforce development, research & development, and export marketing.

As ICWT moves forward, its leaders have determined to go through a strategic analysis and planning exercise which will realign the services with current and future opportunities. The end result will be a two-year implementation plan that offers a proactive approach and tactically positions ICWT so it will continue to serve the private sector and remain the international leader in water technology. If you would like to be active in this process or would like to know the status of the process, please email Laura Ramos at lramos@csufresno.edu.

City of Clovis to hold land use conference October 16

The City of Clovis will be holding the second annual Valley Land Use Conference on October 16, 2009 at the Clovis Memorial District building in Clovis, California. The event will focus on water efficiency issues and urban design for the San Joaquin Valley. Panelists will discuss issues including:

- Valley water conditions
- Delta, groundwater and surface water supply issues
- Urban design, density and water conservation

- Landscaping and water conservation
- Water management policies

The event will also include tours of the Clovis Water Reuse plant, Surface Water Plant and Clovis Botanical Garden.

The \$25 conference fee includes a luncheon, tour, and informational binder. For questions, additional information or sponsorship opportunities, contact Lisa Maskovich at lisama@cityofclovis.com.

Clean energy and water technology asset map unveiled October 14

The Economic Development Corporation (EDC) serving Fresno County will unveil the highly anticipated Clean Energy and Water Technology Asset Map of Fresno County, a topographic model of current and potential clean, renewable energy and water resources. The unveiling will be part of the Economic Profile and Annual Report meeting on October 14, 2009.

This model will allow the EDC to strategically attract and locate emerging industries in clean renewable energy and water technology in Fresno County.

This premier event is attended by over 600 of the top business professionals and government leaders in central California.

We invite you to consider publication sponsorship and/or exhibitor sponsorship.

To sponsor or for questions, please contact Bethany Thompson at 559-476-2503 or bthompson@fresnoedc.com. Thank you!

Improving water and energy technology through anthropology

The Institute of Public Anthropology (IPA) is an ancillary unit of California State University, Fresno. The IPA mission is to apply anthropological methods and knowledge to improving the quality of life in the San Joaquin Valley. As cultural anthropologists, our expertise lies in understanding human behavior, an expertise that can add value to any business.

One major way that American businesses are using anthropological expertise is in discovering new product opportunities. The main research strategy in anthropology involves spending time observing and interacting with people in their natural settings – at work, school and play. The goal of IPA research is usually to discover how people live, what they think is important, and their hopes and goals for the future. This research approach is well-suited to discovering opportunities for new (or improved) products and services. Spending quality face-to-face time with people enables the researcher to discover previously unknown needs by observing,

firsthand, peoples' frustrations and ad hoc workarounds.

American corporations have committed significant resources to anthropological research in their quest to innovate and develop breakthrough products. Companies with major anthropological-style research arms include P&G, Intel, Microsoft, Apple, Toyota, and many more.

Water and energy are areas where innovation and discovery are both real and necessary. IPA researchers are available to probe areas of human life that directly involve water and energy to try to find opportunities for new or improved products and services.

For more information please contact Dr. Hank Delcore, at hdelcore@csufresno.edu

Pump testing begins in the ICWT WET Lab



ICWT recently conducted the first pump tests at the new hydraulics facility located in the WET lab. The first pump tested was 20-hp centrifugal pump assembly. Results of the test were used as a basis for trimming the impeller to better match the motor operating characteristics.

The second pump tested was a 100-horsepower turbine pump. A laboratory calibrated motor

was used thus permitting accurate information on the pump efficiency. This pump had a shutoff head over 600 ft.

The ICWT pump testing facility can test turbine, submersible and centrifugal pumps to Hydraulic Institute standards as required to determine pump efficiency, NPSHR, and hydrostatic pressure capabilities. National Institute of Standards and Technology (NIST) traceable Venturi flow meters are $\pm 1/4$ percent accurate to flow rates up to 6,000 gpm. Related instrumentation is also NIST traceable.

The pump testing sump will accommodate overall lengths up to 23 ft. The building is spanned by a bridge crane with a lifting capacity of 10,000 lbs to a clearance of 18 ft. Calibrated VHS motors are available in sizes 50, 100, 200, and 300 hp.

ICWT pump testing can help pump companies to service their customers in a more timely and economical manner. For more information visit the ICWT web site at www.icwt.net or phone (559) 278-2066.

June meeting wrap up

Micah Curtis, Tower Tech – Curtis provided a presentation regarding cooling towers. The main topic areas were: What factors determine the amount of water used by an evaporative cooling tower? How much water does a cooling tower use? Can cooling towers utilize less water and innovative technologies that reduce water usage? A copy of his presentation is available at www.icwt.net.

SWOT analysis: Facilitated by Jennifer Paul, Office of Community and Economic Development. An analysis of the strengths, weakness, opportunities and threats were discussed at the cluster meeting. Staff from the Regional Jobs Initiative (RJI) was in attendance to facilitate the conversation and will provide support to the continued growth of the cluster. For a copy of the SWOT analysis please visit www.icwt.net.

WATER CLUSTER MEETING*

**Central Valley Business Incubator
1630 E. Shaw, Suite 163
Fresno, CA 93704
September 17, 2009
9 A.M. – 11 A.M.**

**Please RSVP to lramos@csufresno.edu
or (559)278-2066**

From The North

- Take Hwy 99 South
- Take SHAW AVE. exit - Exit 140
- Take RIGHT onto W. SHAW AVE
- Left onto N. 9TH ST.
- Turn RIGHT onto E. SHAW AVE. (frontage road)
- End at 1630 E. SHAW AVE.

From The South

- Take Hwy 99 North
- Merge onto CA-41 N toward Yosemite
- Take SHAW AVE. exit towards CLOVIS
- Turn RIGHT onto E. Shaw AVE. (frontage road)
- End at 1630 E. SHAW AVE.

* Technical presentations are part of an ongoing effort to provide a venue for cluster members to learn about innovative ideas and products. They do not constitute product endorsement by either Water Cluster members or the International Center for Water Technology. If you are interested in presenting at an upcoming meeting, please contact Laura Ramos at lramos@csufresno.edu.