



\$1.8 million appropriation funded for the International Center for Water Technology



Congressman George Radanovich's office has notified the San Joaquin Valley Water Technology Cluster that the ICWT will receive a \$1.8 million appropriation in the 2003 Omnibus Spending Bill. Given the intense competition for funding this year, the award is absolutely incredible. A team effort made this appropriation possible. Special thanks to Congressmen George Radanovich, Cal Dooley, and Bill Thomas and Senators Diane Feinstein and Barbara Boxer and their staffs. Without their support, ICWT would not have advanced this year. We also owe a great deal of gratitude to Vern Highley of Highley Associates for his generous contribution of time and expertise.

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According to Dr. John D. Welty, president of California State University, Fresno, "The International Center for Water Technology is an exciting project for the San Joaquin Valley, and this allocation will allow the project to move forward."

The International Center for Water Technology is a joint venture between California State University, Fresno and the SJV Water Technology Cluster, an organization of more than 40 manufacturers of water-related products. The ICWT is envisioned as a leading center for water research and development.

The project's first building is expected to be completed this year. It will provide a host of expanded testing and certification services for the water industry, including water meter testing for the agricultural market and wastewater treatment plants.

Additional requests for federal funding and a campaign for private donations are in development to complete the funding for the Center. If you are interested in more information about the International Center for Water Technology and its related programs and services, please contact the Center for Irrigation Technology at (559) 278-2066.

International Center for Water Technology Joins World Water Corporation in launching Solar Initiative

The International Center for Water Technology (ICWT) has taken another step to partner with industry and encourage widespread adoption of water and energy technology that is economically and environmentally beneficial by signing a Memorandum of Understanding with solar energy industry leader World Water Corporation. The MOU was signed at a reception at California State University, Fresno on March 27. ICWT Water Cluster co-chairman Ray Dunn, president of Floway Inc. was the master of ceremonies for the reception.

The New Jersey-based World Water Corporation is a solar energy company that develops and installs water and irrigation pumping equipment utilizing new technology. The company recently dedicated a proprietary state-of-the-art, 50 horsepower solar irrigation pump system – the only one of its size in the world — at the Mendota-based D.T. Locke Ranch.

The ICWT will launch a major solar initiative during summer 2003 to encourage farmers, water districts, and other agricultural water users to utilize solar energy to pump a significant amount of their annual water during peak electrical usage periods. The

new technology provided by World Water and high efficiency arrays by other firms will enable an evolutionary shift in renewable energy sources for agricultural water pumping.

The new solar initiative by ICWT will accomplish the following goals:

- Reduce irrigation peak season energy loads;
- Provide for small-scale distributed generation in agricultural areas of utility grids that are transmission constrained;
- Enable urban areas such as the San Francisco Bay Area to use central station or imported power that would otherwise have been used to pump irrigation water;
- Enable California farmers and water districts to participate in Net Metering projects and incentive-rebates for the purchase of renewable energy equipment;
- Reduce polluting air emissions from stationary diesel engines that convert to solar power thereby improving Central Valley air quality;
- Encourage ICWT Water Cluster members to develop and produce water technology and irrigation equipment that is "solar friendly" and energy efficient; and
- Provide a new source of high quality jobs for business building and installation of new solar equipment on farms and for water districts.

Attending the signing reception were California Energy Commissioner Robert Pernell; World Water Corporation President and CEO Quentin Kelly; President and World Water-California President, Guy Phillips; Dr. Karl Longley, Dean of the California State University, Fresno College of Engineering; and ICWT Director, David Zoldoske.

Careers in Manufacturing Technology (CIMT) Program Moves Ahead

Recruitment for Summer Internship Program- In Fall 2002, the recruitment efforts were launched for the 2003 Summer Internship Program. To date,

nine (9) host companies have been recruited and approximately 25 students have applied to the program. Interviews are set to begin later this month. Additionally, the comprehensive student and employer handbooks for the CIMT internship program have been completed. These manuals include all required forms and information related to the internship program.

The internship program is designed to give students exposure to their field of study in the manufacturing industry over the summer. In most cases, internships will last 2-4 months. During the internship, students are paid \$8.50 per hour by the company and the college covers workers' compensation. The first internship program will begin June 1, 2003.

There is still time to participate! Contact the Central California Futures Institute at 278-8460, for your informational packet.

Water Technology Training Academy – Faculty members from the community colleges are currently working on the Training Academy curriculum, and both



**INTERNSHIP PROGRAM
& WORK EXPERIENCE
2003**

colleges are preparing the academic paperwork required for course credit. The cluster companies were surveyed to determine what topics were to be covered in the summer course. The community college faculty will facilitate the classes, and industry leaders will participate as guest speakers. The training academy will be offered within the interns' 40-hour workweek and will begin June 2003.

Launch of Work Experience Program – To date, five (5) students have been placed with participating cluster companies in the work experience program. This component of CIMT provides students with an opportunity to gain experience in a

manufacturing environment, mentoring from supervisors, and encouragement to stay in school, while earning an hourly wage much higher (approx. \$8.50 per hour) than other entry level jobs in the area. If you have a part-time opening at your company please call 278-8460.

Job Shadowing Program/Industry Tour Job Shadowing is an opportunity for a student to spend a designated amount of time with a person who serves as an occupational career model in the area of the student's interest. Students and host companies are encouraged to sign up for job shadowing this spring. The community college faculty is also organizing classroom tours to visit industry companies. If your company is open to classroom tours, please call 278-8460.

Promotion of Manufacturing as a Career – The Water Cluster Workforce Committee has been working collaboratively with the community colleges to promote the career opportunities in the cluster, as well as the customized training programs available through the community college campuses. Currently a multimedia presentation CD is being prepared for distribution to high school students and incumbent workers. The CD will be completed in May 2003.

To participate or receive more information about any of the programs above, please contact Manjit Atwal at 559-278-8460 or via email at manjitm@csum.edu

CALIFT Update

CALIFT, Fresno State's export development program targeted to specifically support the water technology industry, has been busy since the last reporting period assisting numerous water technology clients. Our activities are described below:

1. CALIFT participated at the NGWA (National Ground Water Association) show in Las Vegas in December. More than 6,000 attendees participated at this very successful expo. Both CALIFT and

the ICWT were exhibited and generated excellent interest.

2. CALIFT "went international" and exhibited in Culican, Mexico at the AgroExpo show. Four "Water Technology Cluster Members" filled the CALIFT booth as part of the US Dept. of Commerce pavilion. The show is a smaller version of the World Ag Expo in Tulare, California. All cluster participants reported excellent results/contacts from this show. As a result, CALIFT plans to participate in 2004. Contact Laura Ramos at (559) 278-2066 or lramos@csufresno.edu for details.

3. CALIFT successfully exhibited at the World Ag Expo in Tulare this February. We joined forces with the Agricultural Pumping Efficacy Program. The combined booth was 20 feet long and most effective. CALIFT and ICWT were presented. CALIFT also co-sponsored the international reception held Wednesday evening with over 400 international visitors in attendance.

Reports and contacts developed through these show and activities are available for member use. **Please contact Laura Ramos at (559) 278-2066 or lramos@csufresno.edu for details.**

Plans for the coming quarter include:
American Water Works Association (AWWA)

June 15-19, 2003
Anaheim, CA
www.awwa.org
CALIFT Booth Number 873

Aquatech/Fitma

June 3-5, 2003
Sao Paulo, Brazil
www.aquatechtrade.com/brazil2003

CALIFT will purchase a booth. If any company is interested in exhibiting please contact Laura Ramos at (559) 278-2066 or lramos@csufresno.edu.

ICWT Marketing and Advocacy Committees Establish Virtual Committee Meetings

A web forum site has been established for the Marketing and Advocacy committees so the committee members can discuss and develop recommendations for the full membership. The forums will also have a sub-web page to develop the PowerPoint presentations that will be given at the May 22 meeting in Bakersfield.

All interested individuals will be able to see the presentations prior to the meeting and are invited to provide input before the final presentations are given. This gives those who cannot attend the meetings an opportunity to see where the groups are going and add input.

Don Thompson can be contacted at dthompson@bsrgroup.net if you have any questions regarding the forum.

Industry News

Two companies jointly attack the size, amount, energy requirement and distribution of tiny water droplets to meet modern environmental and economic challenges

When ICWT members, David Malcolm of Full Coverage Irrigation (Coarsegold, California) and Jerry Todd of EMViron Technologies (Bakersfield, California) got together at the Center for Irrigation Technology sprinkler lab recently, it was to follow up on both companies' desire to deal with four critical elements in the use of nozzles:

- Droplet size emanating from the nozzle;
- Amount of flow from microliters to gallons per minute;
- Energy and source of energy required in accomplishing atomization goals; and
- Distribution of the droplets or mists for maximum application effect.

Hold on now, this can get interesting! These ideas have broad application from delivering medicine to the lungs, burning fuel, and scrubbing toxic gases to evenly irrigating a golf course or carrot field or demineralizing water. It's permutations and combinations. It's trying to get the maximum effect at the lowest energy cost and the minimum environmental impact.

It was a meeting of 2 generations of sprinkler nozzle design through Full Coverage Irrigation (FCI) and newly patented stable vortex microatomization through EMV. Mundane? Uninteresting? Not when your life hangs in the balance, toxic gases are contaminating an area, a crop needs to be as uniform as possible, your golf course greens and fairways look like a tundra, or highly mineralized water threatens your environment while destroying your living and sapping your investment.

Water, energy and environment in a harmonious blend make the work of ICWT member companies both challenging and interesting. How did the tests come out at the CIT lab? Dave and Jerry went home smiling.

Story submitted by:

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ICWT member develops new Arsenic removal system

Dateline Alaska: In early 2001, Northern Testing Laboratories, Inc. and Jon W. Dufendachl, President of Delta Industrial Services, Inc., ran a series of performance tests on a 5 gallon per minute (gpm) portable water treatment system which uses ozonation and filtration in combination with innovative co-precipitation technology. The results lower the arsenic content of the water from 237ppm to below the standard 10ppm acceptable federal level.

Delta Industrial Services is a new emerging company from Delta Junction Alaska and is the newest member of the International Center for Water Technology. Jon and his daughter, Julia, have successfully proven their unique co-precipitation system and are providing innovative package units; complete with skids to small water companies and industrial water users. For details you can contact them at: 907-895-5053 or e-mail: julia@deltaindustrial.com

Would you like to publicize your company's latest accomplishments? Please forward industry news to Kathe McCall at kathem@csufresno.edu or (559) 278-8461 (fax).

May 2003 Water Cluster meeting to be held in Bakersfield, California

At the February meeting of the Water Technology Cluster, it was decided that the next industry meeting on May 22, 2003 would be held in Bakersfield. The meeting will be held at CSU Bakersfield beginning at 9:00 a.m. Lunch will be provided for all attendees following the meeting.

Invited guests will include local elected officials and oil-related manufacturers. This meeting will provide a networking opportunity for cluster members and guests and will expand the water technology cluster link further south in the Valley and Sothern California. We look forward to a large turnout of manufacturers throughout the State.

If you are interested in attending or participating by teleconference, please notify Kathe McCall at kathem@csufresno.edu or (559) 278-8460. An agenda and more details will be sent out prior to the meeting by e-mail.

WATERCLUSTER MEETING

May 22, 2003

9 – 11 A.M.

*California State University, Bakersfield
Bakersfield, CA 93311-1099*

Please RSVP to kathem@csufresno.edu or (559)278-8460

Join the “Water Cluster” and make things flow!