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## STREAMLINES



## Louis Fletcher honored for a Lifetime of Achievement in water

Former San Bernardino Valley Municipal Water District General Manager Louis Fletcher received the 2007 WRI Lifetime Achievement Award.

Mr. Fletcher has had a role in nearly everything connected to water in the San Bernardino Valley.

The award, given annually, recognizes local leaders who have made significant contributions to the area's water re-

sources. Past recipients include former California State Senator Ruben Ayala, former Metropolitan Water District Board President Lois Krieger, former General Manager of Eastern Municipal Water District John Brudin, water attorney Art Littleworth, and U.S. Congressman Jerry Lewis.

The award dinner on Jan. 19 was attended by about 100 people in the Upper Commons Dining Room on the CSUSB campus and featured a tribute film about Fletcher, called "Louis Fletcher; San Bernardino's Water Visionary."

Donations to the G. Louis and Janet Fletcher Endowed Scholarship fund will support CSUSB students pursuing undergraduate or graduate degrees in water-related degree programs.

To donate to the Fletcher scholarship fund, contact Susan Lien Longville at (909) 537-7684.



*Louis Fletcher and President Albert Karnig listen to tributes for Fletcher, the man who built much of San Bernardino's water infrastructure.*

## WRI secures \$275K grant for internships

In 2007, the WRI applied for and received a \$275,000 grant from the USDA, to help encourage undergraduate and graduate students to pursue careers in Natural Resources.

The grant objectives are to increase student retention, increase student IT competency, increase mentorship and training through internships and encourage higher degrees. The funds provide paid 18-week internships for up to 30 students from all academic disciplines and one \$25,000 scholarship for a student to pursue an advanced degree.

CSUSB Biology Professor Jim Noblet is leading the effort as the Principle Investigator and the WRI's Lisa Pierce is the project manager. Currently there are two students participating. The WRI staff will be talking to various classes during the spring session to better publicize the availability of the funds, and encourage students to apply for the internships.

Applications for a WRI Internship in Watershed Management are available to CSUSB students on the WRI website at [http://wri.csusb.edu/documents/Internship\\_ApplicationPacket\\_FINAL.pdf](http://wri.csusb.edu/documents/Internship_ApplicationPacket_FINAL.pdf). To read about one of our USDA-funded interns, see the "Meet" story on Page 3.

## Drought Conference attracts Inland Empire water leaders

About 115 people attended the "Managing Drought in the Inland Empire" Nov. 9 at Cal State San Bernardino.

The WRI's annual conference was sponsored by the San Bernardino Valley Municipal Water District and included panels moderated by Dr. Jeff Beehler, of Santa Ana Watershed Protection Agency and Steve Macaulay, of executive director of Association of California Water agencies. Beehler's panel was a roundtable discussion with Inland Empire water managers about whether water conservation measures will be temporary or permanent. Macaulay's panel included board presidents, who

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## Archives Corner

### Water Hero feted

The WRI Advisory Board chose Joseph A. Rowe to receive the Institute's first Water Hero Award, awarding it posthumously to the man whose personal papers are the cornerstone of the WRI archives.



His daughters, Patricia Rowe Watt and Maryann MacVey, accepted the award at the 2007 Lifetime Achievement Award Dinner January 19, 2008.

A tribute video, "2007 Water Hero Joseph A. Rowe: A Gift of a Lifetime" was shown during the ceremony and is available from the WRI.

The Water Hero award was created in 2007 to recognize a specific substantial contribution made by an individual that benefited local water resources.

The historical collection of documents assembled by Mr. Rowe after a lifetime working in water in the Inland Empire was donated to the CSUSB Pfau Library in 2000, helping create the the largest collection of historic water related documents open to the public in Southern California.

To learn more about the Archives, visit <http://wri.csusb.edu/> or call Suzie Earp, at (909) 537-7683.

## Birds and Bees and Butterflies, Oh My!

### WRI, water agencies team up to plant seeds of conservation

The WRI is heading up a pilot study, in connection with local water agencies, schools and a commercial nursery to determine whether children can sell drought-tolerant native plants to homeowners while raising funds for their schools and ultimately whether this novel approach is an effective mechanism to get homeowners to buy plant materials that result in water conservation. Up to 70% of the water used in the average Inland Empire home is dedicated to thirsty grass, flowers, bushes and trees.

"The Water Conservation and Native Habitats Garden program pilot study was designed to take advantage of two known behaviors. Good parents support what their children learn in school. Good schools need to raise extra funds to meet student needs. In the study, parents can support the water conservation measures their children learn at school and schools can raise extra funds by asking students to sell drought-tolerant native plants that conserve water" said Susan Lien Longville, Director of the WRI.

Students from five schools will spend March and April selling themed "gardens," boxes of eight drought-tolerant or California native plants grouped according to the wildlife they attract or the look they create in a landscape. There is a "butterfly" garden, a "songbird" garden, a "fragrant" garden and a "grasses" garden. Each garden will include a minimum of three different species in 2¼ inch biodegradable containers ready for planting.

Each garden is \$25 and includes overnight shipping from the native plant nursery to the buyer's home. Of the total cost, schools receive about \$11—a much higher percentage of proceeds than schools traditionally receive for their fund-raising efforts.

The goal of the pilot study is to determine the feasibility of a larger sales program in the fall. The concept has already attracted notice from local media and environmental groups throughout the region, which are excited about the concept of training children into ambassadors for water conservation and environmentally friendly gardens.

Joint  
Community and Faculty Advisory Board  
Meeting  
April 3, 2008  
@ 3:30 p.m.  
in Foundation Board Room  
R.S.V.P. to  
Gigi Hanna at (909) 537-3687.

**Meet: Angelique Santiago**

**Mass Comm. intern takes conservation message into the class**

Angelique Santiago spent the last months trying to figure out how to explain the importance of outdoor water conservation to children, from kindergartners to high school students.

The 20-year-old mass communications major is one of two interns the WRI recently hired under a USDA grant to encourage more students to pursue careers in Natural Resources. Working with WRI partner agencies, Angelique has crafted



*WRI intern Angelique Santiago is working with local elementary and high schools to introduce the concept of selling California native plants as fund-raisers.*

will talk to the students about water conservation, and the role that native and drought tolerant plants can play in it, and also contacted businesses to donate prizes for the top plant sellers in each school.

She researched the topic of water conservation to create a PowerPoint presentation about water use in and outside of the house, and created several activities to reinforce the messages for the school children. Angelique signed up five schools—three elementary schools and two high schools—

a presentation she will be taking to local schools in the coming weeks to introduce the concept as part of the WRI's Water Conservation and Native Habitat Gardens project. For information about the project, see "Birds, and Bees and Butterflies, Oh My" story, Page 2.

That project is a pilot study to determine the effectiveness of children as a means to sell native and drought-tolerant plants within the construct of a school fundraiser. (Communications research shows that children are generally good messengers to deliver messages, a theory backed up last year in the WRI Landscape Water Use Efficiency study, where homeowners polled statewide about the most effective people to hear water conservation messages from confirmed that they would listen to their informed children).

Angelique contacted schools to determine their interest in participating in the pilot project, set up assemblies where she

interested in participating in the pilot study. Not long out of high school herself, the Fontana resident was less concerned about talking to the students than to their principals.

"I'm not scared about the presentation, I think that will be easy because I like kids" she said. "But I've never had to talk to principals before and I didn't know how to do that. But I got over that and realized they're just normal people and I'm not intimidated by them any more."

She began the internship in January and will be visiting schools in March.

Angelique plans to be a broadcaster, but said the experience she's had with her internship may change her mind. "I might consider working for a water agency," she said. "I like learning about water conservation and being green."



# Doing vital work in Lytle Creek

The Institute is partnering with two faculty members and several Santa Ana Watershed groups to do a state-of-the-watershed study of Lytle Creek, to be completed by July 2010.

The project will consider landscape conditions, biotic conditions, ecological processes, social and economic conditions and chemical and physical characteristics.

California Resource Connections, the Santa Ana Water Quality Control Board, the Santa Ana Watershed Association and Inland Empire

Resources Conservation District, along with CSUSB science faculty and the WRI will be part of a wide-ranging project with several objectives, including water quality and species monitoring, public education about the forest, and an enhanced wildfire prevention program.

A key element of the public education component will be the "Lytle is Vital" program, with watershed forums, school programs and general outreach. Other elements

include water quality monitoring, recovery monitoring of the speckled dace, and efforts to increase community awareness of those issues.

Dr. James Noblet, biochemistry professor, is spearheading the water quality monitoring, which will include testing bacterial indicators and water turbidity. Dr.



Lytle Creek. Source: San Bernardino County General Plan

Tony Metcalf, biology professor, will continue studying a minnow that lives in small freshwater streams. After the 2005 fires in the area above Lytle Creek, populations of the *speckled dace* in the streams with the highest amount of watershed burned were still evident after the fires,

but extinct after the floods. He will be studying the causes of the die-off.

The project advisory board includes members from West Valley Water District, San Bernardino Valley Municipal Water District, Santa Ana Watershed Protection Agency, Fontana Water Co. and the Santa Ana Water Quality Control Board. The group had its first meeting Feb. 12 at West Valley Water District.

## Drought *continued from Front page*

discussed how their agencies are investing in methods to drought-proof the region. A third panel covered practical tools for conservation, including demonstration gardens, waert efficient appliances and irrigation devices.

Dr. Richard Minnich, Earth Sciences professor from UC Riverside, was the keynote speaker at lunch, offering a historical perspective on drought in California. Keith Coolidge, Deputy Director of CALFED, discussed the crisis in the Bay-Delta..

The afternoon conference was preceded by a free morning Global Warming/

Climate Change summit geared to students who were unlikely to attend the afternoon session.

Subjects included what global warming means to the planet, to California, to the water supply and flood risk and to the health of our communities.

Dr. James Dulgeroff, formerly chief economist for the Southern California Association of Governments and currently an adjunct faculty member at Cal State San Bernardino, spoke about the economics of global warming, a subject particularly popular with the students.

