

# Ephemeral Flow

A NEWSLETTER ABOUT SAHRA

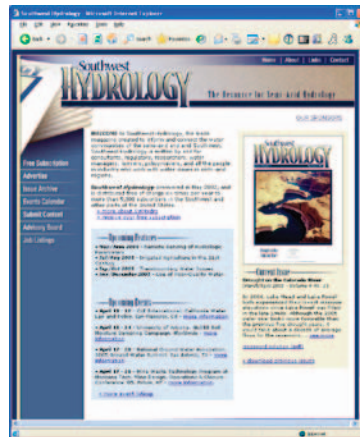
APRIL/MAY 2005

Welcome to the April/May issue of Ephemeral Flow, a newsletter for sharing information within the SAHRA community. Ephemeral Flow is sent to SAHRA researchers, staff, and students at all participating institutions approximately every two months. Your contributions and suggestions are always welcome. Please send items to Mary Black at [mblack@sahra.arizona.edu](mailto:mblack@sahra.arizona.edu).

## FEATURES

### More is Definitely Better for SWH!

Southwest Hydrology is not just better, it's bigger! Publisher Betsy Woodhouse has been pulling in advertising contracts hand over fist, leading to an increase in issue size from 40 to 44 pages. Forty-eight-page issues are a distinct possibility in the near future. The publication has added new features this year, including a "point-counterpoint" section, more color pages, even an occasional crossword puzzle. If you don't already receive *Southwest Hydrology*, take a minute to sign up for a free subscription at [www.swhydro.arizona.edu/](http://www.swhydro.arizona.edu/). The SWH website also has been redesigned and is well worth exploring. Students, take note: an expanded "Job Listings" section of the website lists a healthy selection of job openings, many of them for beginning hydrologists.



Redesigned SWH website.

## UPCOMING EVENTS

Meetings, Workshops, Seminars, Short Courses

**April 14-15:** Regional SWEON meeting, Tempe (more info, page 2)

**May 12:** SAHRA Executive Committee meeting, Tucson, Doubletree at Reid Park

**May 13:** SAHRA External Advisory Board meeting, Tucson, Doubletree at Reid Park

**Oct. 26-28:** SAHRA Annual Meeting and NSF Site Visit, Tucson, TBA

## CONTACT US!

Please let us know when you have news to share or a reason to brag. Students, let us know for example when you have completed your oral exam, defended your thesis/dissertation, or accepted a position in the real world (or even academia). Faculty members, are you offering a new course, hosting a workshop, leading a panel, editing a new journal? Too bashful to talk about your own accomplishments? Anonymous or second-party tips on newsworthy announcements will also be gratefully accepted.

## RESEARCH

### Field Notes from the Roof

Students in Jim Washburne's spring 2004 Advanced Topics Seminar course at UA applied for and obtained a \$10,000 P3 Award from the EPA. P3 grants are awarded to college students to research, develop, and design sustainable solutions to environmental challenges, and Jim's class



Graduate students Deirdre Brosnihan and Arun Wahi work on the group's solar stills on the roof of UA Atmospheric Sciences.

proposed development of solar stills that can be used in remote communities along the U.S.-Mexico border that have poor-quality groundwater. Class participants learned about grant writing and project management while putting their hydrology skills to work on a significant world health problem. Students in this year's class are writing a grant continuation proposal to expand the field component of this work.

### International Collaboration

Researchers working on models for the Rio Bravo/Rio Grande Basin decided last fall at the 2nd International Symposium on Transboundary Waters Management to continue collaborating, discussing, and coordinating their research. As a

result, **Juan Valdés** and **Javier Aparicio** convened a follow-up meeting March 3-4 in Ciudad Juarez/El Paso to review, discuss, and assign priorities to several models already developed for the Rio Bravo/Grande River Basin and decide on a cooperative framework for their further development and application. Participating institutions included Comisión Nacional del Agua, the University of Arizona, University of Washington, Universidad Autónoma de Ciudad Juarez, University of Texas, Sandia National Laboratories, IMTA, IBWC (U.S.) and CILA (Mexico), Asociación Mexicana de Hidraulica, Fundación Javier Barros Sierra, and Bohannon Huston Inc. Presentations included the global model for the Grande/Bravo basin being developed jointly by

## RESEARCH (continued)

**Valdés (UA), Howard Passell (Sandia Labs), and Alberto Guitrón (IMTA).**

At the meeting, CNA and IMTA agreed to conduct an evaluation of the models by first administering a survey whereby developers categorize their models according to a set of attributes. This will be followed by a performance test of the models in order to select the one with the highest qualifications. CNA will seek funding for completion and adaptation of that model.

### *What's a SWEON?*

A planning effort for a National Ecological Observatory Network (NEON) was recently funded by the National Science Foundation. NEON will address regional-to-continental scale issues associated with "grand challenges" in ecology as they relate to: 1) biodiversity and ecosystem functioning; 2) biogeochemical cycling; 3) climate change; 4) hydroecology; 5) infectious disease; 6) invasive species; 7) land use; and 8) other emerging issues. Addressing these challenges requires a large-scale, national effort. SWEON specifically cites SAHRA (see [www.sweon.org](http://www.sweon.org)) as an example of a related program that seeks to address ecological and environmental issues at more regional scales, and a partnership of these two efforts seems inevitable and very desirable. NEON will nicely complement the CUAHSI effort (described in the February *Ephemeral Flow*), which focuses on hydrological issues and instrumentation.

An organizational meeting for "SWEON," a regional NEON network for the Southwest, will be held in Tempe April 14-15. The meeting aims to: 1) evaluate how to contribute to and eventually benefit from the opportunity that NEON presents; and 2) increase regional coordination. SWEON will focus on the warm deserts of the Southwest and associated sky islands and elevational gradients. SAHRA affiliate **Dave Breshears** is a member of the organizing committee for the conference, which will be attended by several SAHRA researchers. For more information on the meeting, see [www.sweon.org/sweonhome/0414152005regmtg.htm](http://www.sweon.org/sweonhome/0414152005regmtg.htm).

## STAKEHOLDER ENGAGEMENT

At the 27th Annual Conference of the New Mexico Rural Water Association (NMRWA), held in Albuquerque in March, some 35 NMRWA members attended a one-day course presented jointly by SAHRA and CLIMAS on drought management. NMRWA is an organization of water providers in New Mexico that serve communities with populations of 50,000 or less. The course was taught by Holly Hartmann, Kathy Jacobs, and David Brookshire, and addressed the following topics: New Mexico climate processes and drought; long-term perspectives on climate variability; climate and water supply forecasts; drought planning and management; integrated river basin modeling; and water markets and water banking for small and mid-sized water providers.

## PEOPLE

### *Students finishing degrees in May*

Congratulations to the following students, who will finish their studies this semester: **Karsten (Kris) Sedmera** is busy writing the final draft of his Ph.D. thesis and teaching Water Resources Engineering part-time at Penn State as an instructor in the Dept of Civil Engineering. He will complete his work this semester (Spring 2005).

**Kat Wilson**, Program Coordinator for the WATER kits project in the Education macro-theme, successfully defended her thesis, "Parents' Views of Children's Reported Environmental Discussions and Pro-environmental Actions at Home," on March 28 and will receive an MA in Teaching and Teacher Education from the University of Arizona in May. Kat began her work at SAHRA as a graduate assistant in fall 2003.

### *Publicity/Honors*

#### **El Dia del Agua**

SAHRA students fared very well in the UA Dept. of Hydrology and Water Resources' 15th Annual El Dia Del Agua Student Showcase. The Montgomery Prize for best presentation went to **Alex Serrat-Capdevila** for "An alternative approach to the operation of multinational reservoir systems: Application to the Amistad de Falcon Reservoir System, Mexico." The Hargis Award for 1st prize poster went to **Julio Cañon Barriga** for "Spatiotemporal analysis of monthly precipitation in the Colorado River Basin using EOF and singular spectrum analysis." HWR departmental awards were given to **Matt Weber** for his oral presentation, "Value of instream flow and remote recreation in the Sonoran Desert" and to **Gretchen Oelsner** for her poster, "Quantifying nutrient sources and cycling along the Middle Rio Grande."

**Tasha Lewis** could give us all lessons in time management. Tasha works as a consultant for CH2M HILL while studying for a M.Eng. degree in hydrology at the University of Arizona. Somehow Tasha found time this academic year to help instruct the Science Olympiad middle school team at Our Mother of Sorrows (OMOS) in Tucson on water quality issues. The students were required to learn how mining, agriculture, urban runoff, and industry affect pH, temperature, dissolved oxygen, nutrients, salinity, and bacteria within watersheds and estuarine ecosystems. At the Arizona state competition in March, the OMOS varsity team of Stacy Garland and Sergio Matias won top honors out of 33 teams, while the JV team of Jenna Wild and Garrett Abeln placed fifth. OMOS will go on to the national competition May 20-21 at the University of Illinois at Urbana-Champaign. Congratulations to Tasha, all the students, co-teachers and coaches.



*Co-teacher Betina Hofacre, Matias, Garland, and Lewis.*