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Conservation Matters

THE TEXAS LAND, WATER AND WILDLIFE CONNECTION

A publication of the Texas Water Resources Institute and the Texas A&M Institute of Renewable Natural Resources

New *txH2O* covers urban water issues

What if one day you turn on your kitchen faucet and nothing comes out? The new issue of txH$_2$O opens with this question and covers everything from water conservation on the Texas A&M University campus to the science behind whether healthy lawns should always appear "jalapeño green."

Texas' urban water outlook includes increased demand and decreased supplies, and the fall 2013 *txH$_2$O* takes a look at municipal water suppliers coping with declining supplies, experts promoting graywater use and policymakers incentivizing conservation. Mussel researchers with the Texas A&M Institute of Renewable Natural Resources also discuss the importance of freshwater mussels in the new issue.

The new issue is available online at twri.tamu.edu/txh2o. Print subscribers will receive their copies soon, and free subscriptions to the digital version of the magazine are available at twri.tamu.edu/publications/subscribe.

Texas Water Journal to present inaugural forum Nov. 21 in Austin

The Texas Water Journal, an online, peer-reviewed journal about Texas water issues, will present the inaugural Texas Water Journal Forum, "Water, Politics and Drought," **Nov. 21** in Austin.

The forum is free and will provide perspectives from policymakers, scientists, water resource experts and regional leaders on current water issues, coordinators said. It will be held in Room CLA 0.128 of The University of Texas Liberal Arts Building, and will begin at 7 p.m. Attendees may park for a fee in the university's San Jacinto Garage.

"The drought has reminded Texans of the value of water to our state," said **Dr. Roel Lopez**, interim director for the Texas Water Resources Institute (TWRI) and Texas Water Journal board member. "With the state's limited supply of water to satisfy the current needs of municipal, industrial, agricultural, recreational and environmental use, the forum will provide an opportunity to examine how the state will continue to provide water as the population nearly doubles to 46 million by 2060."

The November forum will focus on the Proposition 6 vote, the next legislative session, how courts are remaking Texas water policy and the ongoing drought, he said.

Forum panelists will include **Brad Castleberry**, a principal in the law firm of Lloyd Gosselink Rochelle & Townsend, P.C.; **Ken Kramer**, volunteer water resources chair and legislative advisor for the Lone Star Chapter of the Sierra Club; **Dean Robbins**, assistant general manager of the Texas Water Conservation Association; and **Stacey Steinbach**, executive director of the Texas Alliance of Groundwater Districts.

A question-and-answer session will follow the panel discussion.

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“These are particularly critical issues that need continued dialogue,” said **Dr. Todd Votteler**, the journal’s editor-in-chief and executive manager of science, intergovernmental relations and policy for the Guadalupe-Blanco River Authority. “We invite the interested public to join the panel as we explore the complexity and challenges in providing water for Texans in this century.”

Votteler said this forum is the first of many the journal hopes to present at different universities that highlight priority and emerging water issues in Texas. The University of Texas at Austin’s Environmental Sciences Institute is hosting this forum.

The Texas Water Journal is published jointly by the Texas Water Journal, a nonprofit organization, and TWRI. For more information, contact Votteler at thvotteler@gmail.com. To read the journal, visit texaswaterjournal.org.

Aggieland invited to Nov. 21 riparian and stream ecosystem workshop

The Texas Riparian and Stream Ecosystem Education Program will host a workshop from 8 a.m.–4 p.m. **Nov. 21** in College Station for area residents interested in land and water stewardship in the Carters and Burton creeks watershed.

The program will concentrate on the nature and function of stream and riparian zones, as well as the direct economic impacts and benefits from maintaining healthy zones, coordinators said.

The morning session will be held at the College Station Wastewater Treatment facility, 2200 N. Forest Parkway, east of Highway 6. The afternoon session will be held at Carters Creek near the Brazos Center, 3232 Briarcrest Drive, Bryan.

Nikki Dictson, Texas Water Resources Institute (TWRI) Extension program specialist and coordinator, said the program will include presentations on riparian and watershed management principles, water quality, riparian vegetation, hindrances to healthy riparian areas, management practices and local resources.

“We hope that landowners and managers will incorporate riparian area management into their land stewardship activities and goals,” Dictson said.

“Burton Creek is a tributary to Carters Creek, and practically all of the Burton Creek watershed area is urbanized,” said **Lucas Gregory**, TWRI project manager. “The watershed covers about 57 square miles before the creeks empty into the Navasota River and then the Brazos River.”

He said the creeks are used for fishing and other types of recreation, and the watershed provides valuable habitat for many types of fish, aquatic plants and animals.

“Land use is heavily urbanized in the western portion of the Carters and Burton creeks watershed, as Bryan and College Station encompass much of the watershed,” Gregory said. “As you move east, the watershed becomes more rural.”

TWRI, the Texas Commission on Environmental Quality, Texas A&M AgriLife Extension Service and other stakeholders have been working on a total daily maximum load implementation plan to encourage land and water stewardship in the watershed.

“The goal is for local stakeholders to better understand riparian and watershed processes and the benefits of healthy riparian areas, and the tools that can be employed to prevent and/or resolve degradation and improve water quality,” Gregory said.

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At the conclusion of the training, participants will receive a certificate of completion and appropriate continuing education unit certificates.

The program is free, but lunch will be provided for $10 cash at the door—or attendees may bring their own. The program includes a lunchtime presentation.

Those who wish to order lunch must RSVP by **Nov. 18** to Dictson at 979.458.5915 or n-dictson@tamu.edu, or go to texasriparian.org/trainings/upcoming-training-locations/.

The workshop offers seven types of continuing education units including three units— two general and one integrated pest management — for Texas Department of Agriculture pesticide license holders. It offers one unit from the Texas Water Resources Institute, six hours for Texas Nutrient Management Planning specialists, six hours from the Texas Forestry Association, and 4.5 hours from the Society of American Foresters. The program is acceptable for health, safety and welfare credit from the Texas Board of Architectural Examiners and may also be used for continuing education units for professional engineers.

The program is managed by the Texas Water Resources Institute, part of Texas A&M AgriLife Research, AgriLife Extension and the College of Agriculture and Life Sciences at Texas A&M University. It is funded through a Clean Water Act grant provided by the Texas State Soil and Water Conservation Board and U.S. Environmental Protection Agency.

For more information, contact Dictson or visit texasriparian.org.

Borlaug Institute receives USAID grant to lead irrigation project in East Africa

Dr. Rajiv Shah, administrator of the U.S. Agency for International Development, has announced a new project funded by the agency and awarded to the Norman Borlaug Institute for International Agriculture, part of Texas A&M AgriLife Research.

The five-year, $12.5 million award creates the Feed the Future Innovation Lab for Small-scale Irrigation, which will focus on methods and practices to enhance the use of small-scale irrigation in Ethiopia, Tanzania and Ghana to the benefit of the regions' farmers, coordinators said. The objective is to contribute to sustainable improvements to utilize scarce water supplies, thereby enhancing food production by smallholder farmers. Specifically, the project will work to identify interventions that positively affect small-scale irrigation, as well as develop management protocols and practices to reduce poverty and improve nutrition.

The project is a major effort of Feed the Future, the U.S. Government's global hunger and food security initiative, which last year alone reached nearly 7.5 million farmers with improved technologies and management practices in more than 19 countries around the world.

Dr. Craig Nessler, director of Texas A&M AgriLife Research, said the award "shows a vote of confidence in our ability to benefit the world through extensive resources born of our own challenges in Texas with climate and drought."

Dr. Neville Clarke, senior fellow of the Borlaug Institute for International Agriculture, and project co-director with **Dr. Allan Jones**, will lead the team of scientists at multiple locations of AgriLife Research. They will tackle development of new tools and knowledge for more effective and efficient use of water to meet increasing demands for food.

The research will begin with identifying constraints and opportunities to improving farmers' access to small-scale irrigation technologies and will include introduction of new systems that will be used in practical demonstrations and ad[illegible] African farmers where appropriate, according to Clarke. The project will also provide training in the use of the

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technologies for in-country users — from government administrators to individual farmers — in implementing new capabilities.

Read the full news release at AgriLife TODAY for more information.

Michelsen recognized with AWRA award

The American Water Resources Association (AWRA) recently recognized Dr. Ari Michelsen with the Fellow Member award for his service to the association and his contributions to the water resources community. Michelsen is a professor of agricultural economics and research director of the Texas A&M AgriLife Research and Extension Center at El Paso, as well as a Texas A&M University Regents Fellow. Michelsen is a past-president of AWRA and received the award at AWRA's annual conference held recently in Portland, Oregon.

The award recognizes an AWRA member who has an eminent record in some branch of water resources science and technology and has either been an AWRA member for at least ten consecutive years, served on any of its committees or has been a director or officer of AWRA.

Get reliable water law information from Extension expert's blog

Have a question about the intricacies of Texas groundwater policies? Wondering about the latest developments in regional surface water disputes? You can find these answers and more in the Texas Agriculture Law Blog, written by **Tiffany Dowell**, an assistant professor and Extension specialist in agricultural law with Texas A&M AgriLife Extension Service.

Dowell has covered the following water-related topics:

- Groundwater conservation districts
- Basics of groundwater law
- Basics of surface water law
- Water bills – a summary of the 2013 Texas Legislative Session

For more information or to subscribe to the blog, visit agrilife.org/texasaglaw.

Pecan crop yields light but high in quality

Those who consider pecan pie a must for Thanksgiving won't be disappointed this year as the quality of Texas pecans will be high, according to a Texas A&M AgriLife Extension Service expert.

"They should expect to pay a little more, though, as yields are light," said **Dr. Larry Stein**, AgriLife Extension horticulturist, Uvalde.

This year's crop is in contrast to those of 2012 and 2011, noted Stein, who specializes in pecans, and fruit and vegetable crops. In 2011, drought cut back yields to about half of normal. In 2012, insect pressure was so dispersed that a lot of trees that would have not ordinarily set many pecans had such heavy nut loads that limbs were broken and nut quality down.

Dry weather cut back yields this year, but not to the degree that it did in 2011, and irrigated pecan growers ar
adequate though not high yields, Stein said.

“This year the crop is much shorter; it’s not that big of a crop across the state,” he said. “There are pecans — it’s not like it’s a total washout, and in certain places there are more pecans than we expected.”

And because drier weather means lower disease problems, the quality should be very good, particularly on irrigated orchards, Stein said, but a lot of factors affect the supply and therefore the price of pecans.

“Where the crop is really short, you’ve got to realize the varmints are all working them hard,” he said. “The crows, squirrels, raccoons, turkey and deer — you name it — are all getting their share right now. And as they say, ‘a short crop always gets shorter and big crop will always get bigger.”

Consumer prices currently are rather high right now, Stein said.

“The market (for growers) appears to be a little soft — there’s not a lot of activity,” he said. “Basically, I expect they (wholesalers) are trying to figure what kind of crop we have across Texas and the rest of the United States. Availability will increase as we approach Thanksgiving.

“But make no mistake: There are pecans across the state and they are available now and for Thanksgiving.”

Read the full news release at AgriLife TODAY.

AgriLife Research ecologist: Production comes after restoration of rangeland

A healthy agro-ecosystem is critical to productive, stable rangeland. Land managers trying to restore an ecosystem and productivity must understand it requires a different process of allocating resources under differing situations, according to a Texas A&M AgriLife Research ecologist.

Dr. Richard Teague, AgriLife Research rangeland ecology and management scientist in Vernon, is developing a database that can aid producers in calculating how different management techniques will provide the best and most sustainable resource and economic results.

In his study, Teague is measuring and documenting the effects of different range management strategies on critical natural resources. To improve their situation, he said, landowners must first understand what is necessary to make changes.

“We are studying how conservation award-winning ranch managers do it,” Teague said. “In the process, we are also finding that ranchers who have improved the condition of the range vegetation and soils have increased productivity and have been less impacted by the bad drought we are currently experiencing.”

The Texas section of the Society for Range Management recently presented the conservation ranch award to a rancher who uses a very simple four-pasture management strategy with a growing season rest every three to four years, Teague said. The rancher achieved good conservation, productivity and economic results despite the bad drought — an excellent example of successful use of planned, time-controlled grazing that every rancher would find very easy to manage.

“If you look at successful managers, the leading people exceed the average by a margin and they do that by the way they allocate resources, use different techniques and adapt as things change,” Teague said.

He said his studies, which are on the landscape level instead of the small plot level, are taking place on ranches with similar vegetation — most east of Wichita Falls. Ranches in three contiguous counties with award-winning management were selected.

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The study is examining the impacts of changing key management elements and planning ahead to decrease the impact of different circumstances such as dry or wet seasons, wildfires and changing weather patterns.

Continue reading the news release at AgriLife TODAY for more details.

Feral hog workshop set for Nov. 22 in Gatesville

The Texas A&M AgriLife Extension Service offices in Hamilton and Coryell counties will conduct a feral hog workshop on **Nov. 22** at the Gatesville Civic Center, 301 Complex Circle, Gatesville. The program will open with registration at 7:30 a.m. and conclude by 12:30 p.m. The program, which includes lunch, is free and open to the public.

For more information and to RSVP by **Nov. 18**, call **Chelsea Dorward**, AgriLife Extension agent in Hamilton County, at 254.386.3919; **Pasquale Swaner**, AgriLife Extension agent in Coryell County, at 254.865.2414; or **Dan Gaskins**, AgriLife Extension assistant, Gatesville, at 254.248.0562. Three Texas Department of Agriculture continuing education units will be offered.

“This program is being held in the Leon River Watershed in Coryell and Hamilton counties as a part of their County Hog Abatement Matching Program or CHAMP,” Gaskins said.

“CHAMP is a grant from the Texas Department of Agriculture meant to assist counties with feral hog abatement,” Gaskins said. “Coryell, Hamilton, Falls, Milam and Bell counties received a total of $25,000 in state funds that they must match for a total of $50,000 or $10,000 per county. Since part of that money must be used for educational purposes, Hamilton and Coryell counties are going together to fulfill that requirement through this workshop.”

Gaskins said the counties have put together a concise program with talks planned that mainly deal with the components of successfully managing feral hog populations. The day will include a presentation on feral hogs and the Leon River Watershed by Mike Marshall, Leon River Watershed coordinator and Extension associate with the Texas A&M Institute of Renewable Natural Resources.

This event is provided through a Clean Water Act Section 319(h) nonpoint source grant from the Texas Soil and Water Conservation Board and the U.S. Environmental Protection Agency.

For more information, read the full news release at AgriLife TODAY.

New TWRI and IRNR publications

Pecos River Watershed Protection Plan Update, **L. Gregory, L. Hauck, B. Blumenthal, M. Brown, A. Porter**, TR-447, 2013.

Support Analytical Infrastructure and Further Development of a Statewide Bacterial Source Tracking Library, **G. Di Giovanni, E. Casarez, T. Gentry, E. Martin, L. Gregory, K. Wagner**, TR-448, 2013.

Implementing the Pecos River WPP through Invasive Species Control and by Providing Technical and Financial Assistance to Reduce Agricultural Nonpoint Source Pollution, **L. Gregory, A. Porter, A. Knutson, M. Muegee**, TR-449, 2013.

Natural Resources Training Courses

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