

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

[Flood recovery resources are available through AgriLife Extension](#)



As many Texans recover from recent flood damage, the Texas A&M AgriLife Extension Service has resources that can help.

The Texas Extension Disaster Education Network, or Texas EDEN, has science-based materials related to floods, and other emergencies and disasters at texashelp.tamu.edu. View the [Texas EDEN Floods page](#) for expert advice on flood recovery, and see these specific resources for additional information and for experts to contact:

- [Can These Trees Be Saved?](#) (ER-039): information on assessing tree damage after a storm or disaster
- [When Your Trees Fail: Who Do You Call?](#) (ER-040): a fact sheet on contacts who can help residents with tree care and removal
- [After a Disaster: Recovery Safety Tips](#) (ER-019): advice for avoiding health and safety issues during recovery efforts, including chainsaw safety and how to avoid mosquitos and snakes
- [Onsite Wastewater Treatment Systems: Responding to Electrical Power Outages and Floods](#) (ER-001): information on responding to a disaster's effects on residential septic systems
- [Salvaging Timber: Landowner Do's and Don'ts](#) (ER-037): a fact sheet helping landowners make decisions about damaged timber

Read this [AgriLife TODAY article](#) for more information about Texas EDEN and flood safety.

The National Forest Service [Flooding and Its Effects on Trees](#) page also has helpful information for landowners assessing and monitoring damaged trees. And, for resources on maintaining and protecting healthy riparian areas along streams and rivers, visit the Texas Water Resources Institute's Texas Riparian and Stream Ecosystem Education Program at texasriparian.org.

[Meet TWRI Associate Director Kevin Wagner](#)



As a freshman studying biology at Howard Payne University, [Dr. Kevin Wagner](#) dreamt of becoming a physical therapist. But, he soon realized the impact of his childhood days spent playing in the streams on his grandfather's ranch. His heart was in water resources.

Wagner's passion for water led him to change his career path and pursue graduate work in water. Ultimately, this passion led him to his current position as associate director of the Texas Water

Resources Institute (TWRI).

Wagner began studying water resources management while earning his master's in environmental science from Oklahoma State University. His studies at Oklahoma State opened the door to working in water resources at the Oklahoma

Conservation Commission, which he reflects back on as “a great opportunity.”

When Wagner returned to Texas, he began working as a program specialist at the Texas State Soil and Water Conservation Board (TSSWCB). He eventually became the assistant director of programs, managing a variety of programs, including the Texas Nonpoint Source Management Program, a program to reduce non-point source pollution.

“I was able to establish a good network with a lot of other folks in my leadership position there,” Wagner said. That network of conservation-minded professionals has been helpful throughout his career, he said.

In 2005, Wagner joined TWRI as a project manager. An aspiration to help lead the institute drove him to pursue his doctorate and work his way up to the associate director position in 2009.

Through his years at TWRI, Wagner has seen water resources concerns evolve. In the last decade, his work mainly focused on mitigating bacterial impairments in water bodies, he said. However, since the 2011 drought, he has concentrated more on drought-related issues and water conservation.

Wagner said the position requires that he stay up to date on numerous water issues throughout the state. “It can be challenging, but there is never a dull moment,” he said. “That’s what makes it fun and exciting.”

Wagner credits his professional network and the staff at TWRI for making it easier to tackle water-related issues in Texas. Developing partnerships is important to understanding and addressing water challenges, he said.

“A big part of my job is knowing what scientific expertise and experience is available across Texas A&M and other universities so that when opportunities or issues arise, I know who to engage. I’m constantly trying to stay abreast of what research other people are doing.”

Currently, Wagner said, he is excited about the institute’s work to improve water quality, specifically promoting private land stewardship. Not only does private land stewardship impact water quality and conservation, but it has a number of other benefits, including improved economic conditions for farming and ranching and improved habitat for threatened and endangered species, he said.

To encourage the implementation of voluntary best management practices, Wagner plans to help ensure that agricultural producers have access to the most current scientific data on these practices.

Wagner’s enthusiasm for land stewardship is no surprise considering his agricultural background. In addition to being from a ranching family, he earned his doctorate in agronomy from Texas A&M University in 2011. This background has helped him relate to landowners and understand the unique challenges that producers face, he said.

Approximately 95 percent of Texas land is privately owned, meaning most of the state’s water falls on private land, Wagner said. Because of this, working with private landowners is essential to maintaining water quality and quantity.

When looking to the future, Wagner sees the big picture and said he hopes to focus on holistic natural resources planning, which integrates many factors such as water quality, food and energy production and wildlife conservation. He also plans on working with urban and agricultural water users alike to improve irrigation scheduling tools and training.

In addition to his work at TWRI, Wagner passes his knowledge on to students. Currently, he mentors graduate students in their water resources research. He also co-taught a watershed management course in the Water Management and Hydrological Science Program at Texas A&M in 2013. He also teaches a [short course](#) to water resource professionals from throughout Texas and the United States.

“As a child, I never thought that I would be doing the work that I am doing now,” he said. “But, it’s a good fit — a perfect fit for me.”

[Job openings at IRNR and TWRI](#)

The [Texas A&M Institute of Renewable Natural Resources](#) (IRNR) currently has three full-time positions open:

- [software applications developer](#), located in College Station
- [website designer](#), located in College Station
- [research assistant](#), located in San Antonio

The [Texas Water Resources Institute](#) (TWRI) currently has one full-time position open: [extension assistant](#), located in Weslaco.

For more information on these positions and to apply, go to greatjobs.tamu.edu. Please contact IRNR at irnr@tamu.edu or TWRI at twri@tamu.edu with any further questions.

[Mills Scholar researches turfgrass water needs](#)



Charles Fontanier, a doctoral student in Texas A&M University’s Water Management and Hydrological Sciences Program, believes that most Texans want to conserve water, even when it comes to watering their lawns. He hopes his research helps them understand that they can save water and have their lawns too.

“I think most people want to conserve water and are willing to have a marginally lower quality lawn to do so,” Fontanier said. “I hope the public can use my research to recognize that Texas lawn grasses are hardy and will tolerate temporary drought stress. Even if it turns off-color or loses density, recovery is likely when seasonal rains return.”

He is conducting research on St. Augustine grass and surface water runoff at the Texas A&M Turfgrass Field Lab, in an effort to improve irrigation management of lawns.

Fontanier, who received his master’s and bachelor’s in agronomy from Texas A&M, is a 2014–2015 [Mills Scholarship](#) recipient. These scholarships, funded by the W.G. Mills Scholarship Memorial Endowment, help graduate students at Texas A&M, Texas A&M at Galveston and Texas A&M at Qatar who are pursuing water-related research with the potential to help Texas solve future water problems.

Fontanier said while lawn water requirements change from year to year depending on natural variability in rainfall, temperature and humidity, the historical average-based irrigation recommendation is that lawn managers or homeowners should water their lawns 1 inch a week.

“We wanted to test how successful we could be simply using the annual average of around 1 inch a week to set sprinkler run times,” he said. “Using this common average, the manager would only need to adjust controller run times two to three times per year.”

Fontanier said his research suggested that leaving the sprinkler controllers set at watering around 1 inch per week resulted in the grass being under-watered by as much as 20 percent during a dry year, based on real-time weather data to predict

actual plant needs, but the grass maintained an acceptable appearance. The grass was over-watered by as much as 20 percent in wet years.

“Ultimately, the common adage that you should water your lawn 1 inch per week appears to be fairly reliable for the months of June, July and August,” he said.

One of the strategies used in his research was adaptive irrigation management. “That is, irrigation strategies should be targeted such that we get the most out of each drop of water applied,” he said.

“The question becomes, how little water can we apply in the summer and still maintain adequate density of the grass to spur recovery during cooler, wetter times of the year?” Fontanier said. “Our data indicate that we can use 50 percent of lawn water requirements, or about one-half inch a week, and still have enough live plants to allow complete recovery before winter.”

While conserving water is paramount, especially in the midst of drought and supply shortages, Fontanier said it is also important to remember that turf is a resource and we should consider the unintended consequences of severe water conservation practices for drought-damaged grass on soil moisture, surface runoff and the chemistry of the runoff water.

“For example, as a lawn loses density and becomes desiccated, what happens to the infiltration capacity and nutrient cycling of that ecosystem?” he asked. “Our data suggest that the benefits of maintaining lower soil moisture conditions of droughty lawns exceed the impact of temporary changes to the turf canopy. That is, as long as we keep some grass alive, having drier soils is more effective at improving infiltration than maintaining a high density lawn.”

When it does rain in summer, he said, having drier soil will lead to less runoff of the water. “That means lawn mangers and homeowners are able to keep more of their water on-site instead of losing it to the storm drains.”

Fontanier credits his mentors from Texas A&M’s [Department of Soil and Crop Sciences](#), [Dr. David Chalmers](#), professor emeritus, and [Dr. Richard White](#), professor, with helping him realize the value and need for this research. Once he graduates, Fontanier hopes to become an assistant professor at a university.

[Free video series covers prescribed burning techniques](#)



Texas landowners looking to use prescribed fire to manage their land now can turn to a series of free educational YouTube videos tailored for the Lone Star State.

The [Living With Texas Fire](#) video series of 20 short, how-to educational clips covers everything from planning a burn to transporting a drip torch.

Dr. Morgan Russell, [Texas A&M AgriLife Extension Service](#) range specialist, coordinated the video project and designed it to help Texans become more “fire ready,” she said. Production was supported by Renewable Resources Extension Act funding, administered by the [Texas A&M Institute of Renewable Natural Resources](#) (IRNR).

“The Living with Texas Fire video series is meant to showcase the various aspects of both prescribed burning as a cost-effective means of rangeland noxious plant management and for lessening the damage caused by wildfire, known as wildfire mitigation,” Russell said.

“The videos should also be a vital visual resource for the [Prescribed Burn Alliance of Texas](#), prescribed burn associations and prescribed burn schools, AgriLife Extension agents, Texas Parks and Wildlife Department personnel and landowners

seeking specific fire behavior and resource information on prescribed fire, but also on wildfire mitigation and wildfire community readiness.”

“This video series is excellent and shows the importance of prescribed fire to rangeland management,” said **Brian Hays**, IRNR associate director. “Prescribed fire can benefit livestock forages as well as habitat for wildlife.”

Russell said the idea for the series stemmed from the lack of Texas-specific resource materials currently available.

“From personal experience and from talking to commercial and agency fire professionals across the state, it’s clear that there just wasn’t much out there that was current and Texas specific, especially West Texas specific, when it came to fire video educational resources,” she said.

The Living with Texas Fire video series is unique in that it is geared for the state’s specific vegetation types, ecosystems, climate variability and majority privately owned land, Russell said. Topics include drip torch handling and maintenance, sprayer know-how, burn plans, fire glossary terms, landowner perceptions, fire tools, weather factors and fire-related contacts.

“This is a needed resource,” Hays said. “We hope to continue seeing increased landowner interest in prescribed burning and landowners becoming certified prescribed burn managers.”

For more information on the series or to order free hard copies, contact Russell at 325.657.7317 or Morgan.Russell@ag.tamu.edu, follow Russell on Twitter at [@eXMorganRussell](https://twitter.com/eXMorganRussell) and like the [West Texas Rangelands Facebook page](#).

To learn more about certified prescribed burn manager training, go to pbatexas.org/Training.aspx.

Read this [AgriLife TODAY](#) article for more details about the videos.

[Riparian and stream ecosystem workshop set for June 2 in Waxahachie](#)



The Texas Water Resources Institute (TWRI) [Texas Riparian and Stream Ecosystem Education Program](#) will host a workshop **June 2** in Waxahachie for area residents interested in land and water stewardship in the Richland-Chambers Lake watershed.

The free workshop is from 8 a.m.-4 p.m. and is co-hosted by the Texas A&M AgriLife Extension Service office in Ellis County and the [Tarrant Regional Water District](#) (TRWD).

The morning session will be at the First United Methodist Church, 505 W. Marvin Ave. The afternoon session will include an outdoor walk along a creek and presentations.

Tina Hendon, TRWD watershed program manager, said the goal of the water district’s watershed program is to protect drinking water supplies through responsible watershed planning and stewardship.

“By increasing knowledge about watershed and stream processes, we can change behaviors and create advocates for responsible land management,” Hendon said.

Nikki Dictson, TWRI Extension program specialist and coordinator of the program, said trainings will focus on the nature and function of stream and riparian zones, as well as the benefits and economic impacts from properly functioning riparian systems. A riparian zone is the land area adjacent to the bank of a stream, creek, bayou or river.

Dictson said workshop topics will include riparian and watershed management principles, water quality, riparian vegetation, hindrances to healthy riparian areas, stream processes, management practices and local resources.

Workshop presentations will be given by representatives of TWRI, USDA's Natural Resources Conservation Service, Texas Parks and Wildlife Department, Texas A&M Forest Service, AgriLife Extension and TRWD.

Dictson said healthy riparian areas protect drinking water sources by preventing erosion on stream banks, slowing down the stormwater velocity and filtering out sediment and pollutants of concern.

"The goal is for participants to better understand riparian and watershed processes, the benefits of healthy riparian areas and what resources are available to prevent degradation while improving water quality," Dictson said.

Mark Arnold, AgriLife Extension agent for Ellis County, said participants will receive a certificate of completion and appropriate continuing education unit certificates at the conclusion of the training.

The workshop offers five 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 TWRI and six hours for Texas Nutrient Management Planning specialists. The program may also be used for continuing education units for professional engineers.

The program will include lunch, sponsored by TRWD, and a lunchtime presentation. Attendees may bring their own lunch if they prefer.

Attendees must RSVP by **May 28** to Dictson at 979.458.5915 or n-dictson@tamu.edu, or online at texasriparian.org/trainings/upcoming-training-locations.

The riparian education program is managed by TWRI and 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, visit texasriparian.org or go to facebook.com/TexasRiparianAssociation.

[AMI water utilities workshops coming to cities across Texas](#)



The Texas Water Resources Institute (TWRI), Texas A&M Engineering Experiment Station and Johnson Controls Inc. are continuing to host free advanced metering infrastructure (AMI) system workshops for water utilities in cities throughout Texas this summer.

The workshops locations and dates are:

- Dallas: **June 24**, Texas A&M AgriLife Research and Extension Center, 17360 Coit Rd.
- San Angelo: **June 25**, McNease Convention Center, 500 Rio Concho Dr.
- Beaumont: **July 16**, Texas A&M AgriLife Research and Extension Center, 1509 Aggie Dr.
- Conroe: **July 17**, San Jacinto River Authority, 1577 Dam Site Rd.
- Amarillo: **July 23**, Texas A&M AgriLife Research and Extension Center, 6500 Amarillo Blvd. W.
- Mt. Pleasant: **July 29**, Community Center, 1800 N. Jefferson
- Robstown: **Aug. 6**, Texas A&M AgriLife Extension Service office, 710 E. Main Ave., Suite 1

All of the workshops are from 10 a.m.–2 p.m. Participants should preregister for the workshops at nrt.tamu.edu/ami. Lunch will be provided to those who preregister a week before the workshop. Seating is limited to 45 people.

Dr. Allen Berthold, TWRI research scientist, said the trainings are open to municipal employees interested in learning more about various aspects of AMI system technology. The technology uses water meters to wirelessly transmit hourly household water usage information to water utilities and then potentially to water users through a customer website.

“Efficient household water use is crucial to meeting Texas’ future water demands,” Berthold said. “Using AMI system technology can help water utilities be more efficient by detecting and managing leaks and encouraging water conservation by residents.”

Craig Hannah, engineering manager for Johnson Controls’ municipal utility solutions team in Amarillo, said training topics include AMI system components, transmitting options, network schematics, mobile automatic meter reading versus fixed-base AMI, line-of-sight communications, comparisons of AMI systems for water-only utilities, health and privacy concerns and installing AMI. A business case and lessons learned will also be discussed.

“Participating in this training is a great opportunity to not only learn about various topics related to AMI systems, but also to network with other utilities and gain some insight into their key considerations and lessons they have learned thus far,” Berthold said.

Berthold will also present information on a current AMI technology research project of Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service, TWRI and Texas A&M Engineering Experiment Station.

“This project aims to measure changes in water consumption as a result of making hourly water use available to residents,” he said.

The full schedule of all upcoming workshops, training details and registration are available at nrt.tamu.edu/ami. Contact Berthold at 979.845.2028 or taberthold@ag.tamu.edu for more information.

[New Texas Water Journal articles published](#)



A book review of [Sharing the Common Pool: Water Rights in the Everyday Lives of Texans](#) by **Charles R. Porter** and an article about regulating hydraulic fracturing in Texas are the two newest published articles in the [Texas Water Journal](#), Volume 6, Number 1.

The online, peer-reviewed journal is published jointly by the [Texas Water Resources Institute](#) and The Texas Water Journal, a nonprofit organization.

Dr. Robert E. Mace, Texas Water Development Board deputy executive administrator for water science and conservation and an editor for the journal, [reviews](#) Porter’s book written primarily for landowners and real estate agents and recently published by the Texas A&M University Press. “Capturing the backstories, complexities, and potential pitfalls of Texas water law in a single, readable book is a daunting task, but **Charles R. Porter** braves the challenge and, for the most part, succeeds in delivering a good overview,” Mace wrote in the review.

In [Who regulates it? Water policy and hydraulic fracturing in Texas](#), authors **Margaret A. Cook**, **Karen L. Huber** and **Michael E. Webber** of the University of Texas at Austin conducted a detailed bottom-up survey for each groundwater conservation district to assess the prevailing policies and practices related to water and hydraulic fracturing. The authors write that policies are inconsistent statewide with great variability from district to district in regulations and potential solutions to the challenge of freshwater use. They also provide information on the practice of hydraulic fracturing and examine strategies and alternative solutions for reducing freshwater use for hydraulic fracturing.

The journal's editorial board accepts papers about Texas water resources management and policy issues from a multidisciplinary perspective that integrates science, engineering, law, planning and other disciplines. To read the journal, visit texaswaterjournal.org.

[USDA allocates \\$6.5 million for Ogallala Aquifer work](#)



Agriculture Secretary **Tom Vilsack** recently announced that the U.S. Department of Agriculture (USDA) is investing \$6.5 million in the Ogallala Aquifer region this year to help farmers and ranchers conserve billions of gallons of water and improve water quality. Funding will target seven focus areas in five states, including Texas, to support their primary water source and strengthen rural economies.

“This funding support assists conservationists and agricultural producers to plan and implement conservation practices that conserve water and improve its quality,” said Vilsack. “This work not only expands the viability of the Ogallala Aquifer but also helps producers across the Great Plains strengthen their agricultural operations.”

Underlying the Great Plains in eight states, the Ogallala supports nearly one-fifth of the wheat, corn, cotton and cattle produced in the United States. It has long been the main water supply for the High Plains' population and is being depleted at an unsustainable rate.

Through the [Ogallala Aquifer Initiative](#) (OAI), USDA's Natural Resources Conservation Service (NRCS) is directing funding to support targeted, local efforts to improve the quality and availability of this water supply. This year's work will continue for up to four years and will conserve billions of gallons of water per year, extending the viability of the aquifer for multiple uses, according to NRCS.

This conservation investment builds on \$66 million that NRCS has invested in the region through OAI since 2011, which helped farmers and ranchers conserve water on more than 325,000 acres.

In Texas, OAI funds have been used extensively to update irrigation delivery systems to increase efficiencies and to allow the opportunity for reduced irrigation pumping.

NRCS-Texas plans to transition the initiative to partner with the local groundwater conservation districts to assist producers interested in using efficient irrigation delivery systems, and transition from irrigated crops to non-irrigated. The partners will display water savings at field days and demonstration farms.

“Water is a precious resource, and the Ogallala Aquifer Initiative helps our farmers and ranchers use it wisely,” said **Salvador Salinas**, Texas state conservationist. “This is especially important in a place like Texas, where drought conditions have prevailed in recent history. We know we can't change the weather, but we can help producers be ready for it.”

Read the complete NRCS [news release](#).

[Public invited to water talks across Devils River Basin June 22–26](#)

Anyone interested in water conservation and quality and the construction and maintenance of water wells and septic systems in the Devils River Basin is invited to one of the Water Talks Workshops **June 22–26** at various locations in the area.

These workshops are offered through collaboration among the Texas A&M AgriLife Extension Service's [Texas Well Owner Network](#), Nueces River Authority, Devils River Conservancy and Devils River Association.

"The Texas Well Owner Network program is for Texas residents who depend on household wells for their water needs, so they can learn about improving and protecting their community water resources," said **Drew Gholson**, Texas A&M AgriLife Extension Service program specialist and network coordinator.

Gholson said the workshops help well owners become familiar with water well construction and maintenance; water conservation and ownership; water quality and drinking water standards; abandoned wells, how and why to plug them; and proper function and management of on-site sewage facilities.

He said participants may bring well-water samples to the workshop for screening. The cost is \$10 per sample, due when samples are turned in. Well owners who would like to have their water sampled can pick up two sample containers and instructions from their respective AgriLife Extension office.

"Water samples will be screened for nitrates, total dissolved solids and bacteria," Gholson said. Bringing water samples to the training is not required, but those wanting to have water samples analyzed must attend.

The dates, times and locations for the workshops will be:

- **June 22** from 9 a.m.-4 p.m. at Mitzi's Hookers Restaurant, near Lake Amistad's Rough Canyon Recreational Area in Del Rio. Food and refreshments will be available for purchase. For directions, call 830.768.3616. Sampling containers should be obtained prior to the workshop from the AgriLife Extension office for [Val Verde County](#), 300 E 17th St. in Del Rio.
- **June 23** from 9 a.m.-4 p.m. at The Kitchen Table and Mercantile, 34971 State Highway 163, south of Juno. Food and refreshments will be available for purchase. For directions, call 432.292.4872. Sampling containers should be obtained prior to the workshop from the AgriLife Extension office for [Crockett County](#), 1301 Avenue AA in Ozona.
- **June 24** from 9 a.m.-4 p.m. at the Sutton County Community Center, 1700 N. Crockett St. in Sonora. A catered lunch with donations requested will be available along with complimentary coffee and refreshments. For directions, call 325.387.3101. Sampling containers should be obtained prior to the workshop from the AgriLife Extension office for [Sutton County](#), located at the same address.
- **June 26** from 9 a.m.-4 p.m. at John Shanks Chapel in the Blue Sage West Community near Del Rio. This program is for Blue Sage landowners only. Attendees are welcome to bring their own refreshments. Sampling containers should be obtained prior to the workshop from the AgriLife Extension office for [Edwards County](#), 400 Main St. in Rocksprings.

Gholson said space is limited, so attendees are requested to register at twon.tamu.edu/training or by calling 830-278-6810.

The Texas Well Owner Network is funded through a Clean Water Act nonpoint source grant provided by the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency. The project is managed by the [Texas Water Resources Institute](#).

The Nueces River Authority is a small government agency involved in river education and outreach programs. The conservancy and association are both non-profit organizations involved with the river protection and conservation. Programs in the Devils River Basin are funded in part by the Dixon Water Foundation.

[TWDB issues request for agricultural water conservation grants applications](#)

The [Texas Water Development Board](#) (TWDB) has issued a request for grant applications from eligible entities to fund agricultural water conservation projects.

Available funding includes \$329,600 for cost sharing of metering equipment for groundwater conservation districts that have rules requiring metering of groundwater withdrawals and \$50,000 for other entities to pursue similar water use monitoring projects.

Applications are due by noon on **June 3**. The anticipated award date is August 2015. Current requests for applications and application instructions can be viewed [online](#).

For more information, contact the Agricultural Water Conservation Team at 512.936.6090 or agconservation@twdb.texas.gov.

Read the TWDB [news release](#).

[Bandera water conservation education series offers hands-on instruction](#)

The Texas A&M AgriLife Extension Service along with the Bandera County River Authority and Groundwater District are continuing the 2015 Bandera Water Workshops series in June and August.

Sponsors of the programs include Bandera Electric Cooperative Inc., the Ranchers and Landowners Association of Texas and Hill Country Alliance.

Workshop specifics are as follows:

- Agricultural H₂O Conservation, 10 a.m.-3 p.m., **June 3**, Mansfield Park Recreation Center. Registration is \$15 to cover the meal. The topic and speaker will be: Healthy Streams Program with AgriLife Extension and Riparian Health Field Visit with Sky Lewey, public education associate with the Nueces River Authority.
- Abandoned Well Education and Plugging, 6-7:30 p.m., **Aug. 11**, Bandera County River Authority and Groundwater District office. No charge. Topics to be offered include Abandoned Well Education, and Abandoned Well Plugging Video.
- Rainwater Potential, 8 a.m.-noon, **Aug. 22**, Bandera County River Authority and Groundwater District office. Cost is \$80 per person. Topics will include Rainwater Harvesting 101 and Rainwater Catchment System Build with the Rainwater School.

For more information or to RSVP to any of the workshops, call 830.796.3938 or email srs@bcragd.org, or contact **Sam Womble**, AgriLife Extension agent in Bandera County at 830.796.7755 or s-womble@tamu.edu.

For more information about the continuing education credits, see the full AgriLife Today [news release](#).

[Rainwater harvesting award recipients honored by TWDB](#)



The [Texas Water Development Board](#) (TWDB) recently announced the recipients of its annual [Texas Rain Catcher Award](#), a rainwater harvesting competition and recognition program.

Awards were given in in five categories: community, commercial, nonprofit, education and government.

TWDB's 2014 Rain Catcher Award winners are:

- The [city of Austin's Twin Oaks Library](#) for conducting a pilot study to demonstrate how internet-enabled, real-time control technology is a cost-effective measure for water conservation and stormwater management.
- The [Leadership Montgomery County Class of 2014](#) for promoting water conservation through rainwater harvesting as its class project.
- [Oohla Bean Bed and Breakfast](#) for providing potable water through rainwater harvesting for its guests and developing its facility with rainwater harvesting in mind.
- [RainDrop Harvesting Solutions](#) for developing a portable rainwater harvesting system demonstration that can be transported to schools and events throughout the Brazos Valley.
- The [Texas Department of Transportation](#) for developing two rainwater harvesting systems at the Hill County Safety Rest Areas to promote rainwater harvesting and to educate Texans who pass by each day in more than 60,000 vehicles.

Since the program began in 2007, TWDB has recognized 27 entities and one individual.

Read the TWDB [news release](#).

[TRIES hosting water policy conference June 18-19](#)



The [Texas Research Institute of Environmental Studies](#) (TRIES) at Sam Houston State University (SHSU) is hosting an interdisciplinary water policy conference **June 18-19** at the SHSU Woodlands Center, in The Woodlands, Texas. According to organizers, the event will bring together professionals and academics to facilitate an open dialogue on topics that shape water policy at federal and state levels of government.

Discussions will cover water quality and conservation, as well as how new policies, regulations and laws may affect local water resources.

The deadline for registration is **June 1**. On-site registration will be available for participants and guests but lunches will not be included with on-site registration. Information on costs and registration is available [online](#).

Conference keynote speakers are **Collins Balcombe** of the Bureau of Reclamation, **L'Oreal Stepney** of the Texas Commission on Environmental Quality, **Chris Maxwell-Gains** of Innovative Water Solutions and **Bill Stevens** of the U.S. Environmental Protection Agency.

For questions about the conference, contact **Kaitlen Gary** at kpgary@shsu.edu or 936-294-2501.

New IRNR and TWRI publications

[Basin Approach to Address Bacterial Impairments in the Navasota River Watershed](#), L. Gregory, A. Gitter, K. Lazar, TR-476, 2015.

[Drought Hazard and Vulnerability Maps for Texas](#), D. Rajsekhar, V. P. Singh, TR-475, 2015.

[Texas Watershed Planning Training Project Final Report 2013](#), K. Wagner, N. Dictson, TR-450, 2013.

Natural Resources Training Courses

- Texas Riparian & Stream Ecosystem Workshop - Richland-Chambers Reservoir Watershed, June 2
- Introduction to Proper Functioning Condition Training - Waxahachie, June 3-4
- AMI Training - Dallas, June 24
- AMI Training - San Angelo, June 25