TWRI 2016

ANNUAL REPORT

Helping Texans make every drop count since 1952

Texas Water Resources Institute
make every drop count

TWRI.TAMU.EDU

WHO WE ARE

At the Texas Water Resources Institute (TWRI), we have helped solve Texas' water issues through research, education and outreach for 65 years.

Established in 1952, TWRI became the state's official water resources institute in 1964. Today, we are one of 54 institutes in the National Institutes for Water Resources, supported by the U.S. Geological Survey.

We provide science-based, community-supported solutions for the state's pressing water quantity and quality challenges through internal expertise and external collaborations.

Engaging with local stakeholders and the water resources community in Texas, we provide:

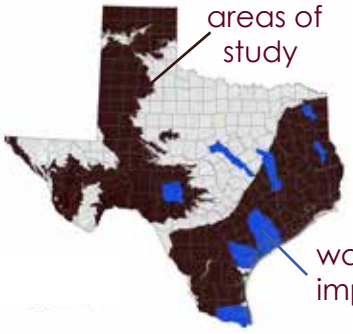
- project development and management
- stakeholder engagement
- watershed and aquifer assessment and planning
- bacterial source tracking
- water conservation research
- geospatial analysis
- professional training
- public outreach

We connect research teams and communities to multidisciplinary expertise by serving as a gateway to a national network of water institutes, The Texas A&M University System and other universities and water resources organizations.

We are a unit of Texas A&M AgriLife Research, the Texas A&M AgriLife Extension Service and the College of Agriculture and Life Sciences at Texas A&M.

TWRI is also closely allied with the Texas A&M Natural Resources Institute (formerly Institute of Renewable Natural Resources), sharing services and expertise to increase efficiencies.

IMPACTS AND ENGAGEMENTS



52 news releases

78 media mentions

20 students supported

3,421 *txH$_2$O* magazine subscribers

$3,300,622 in external grants

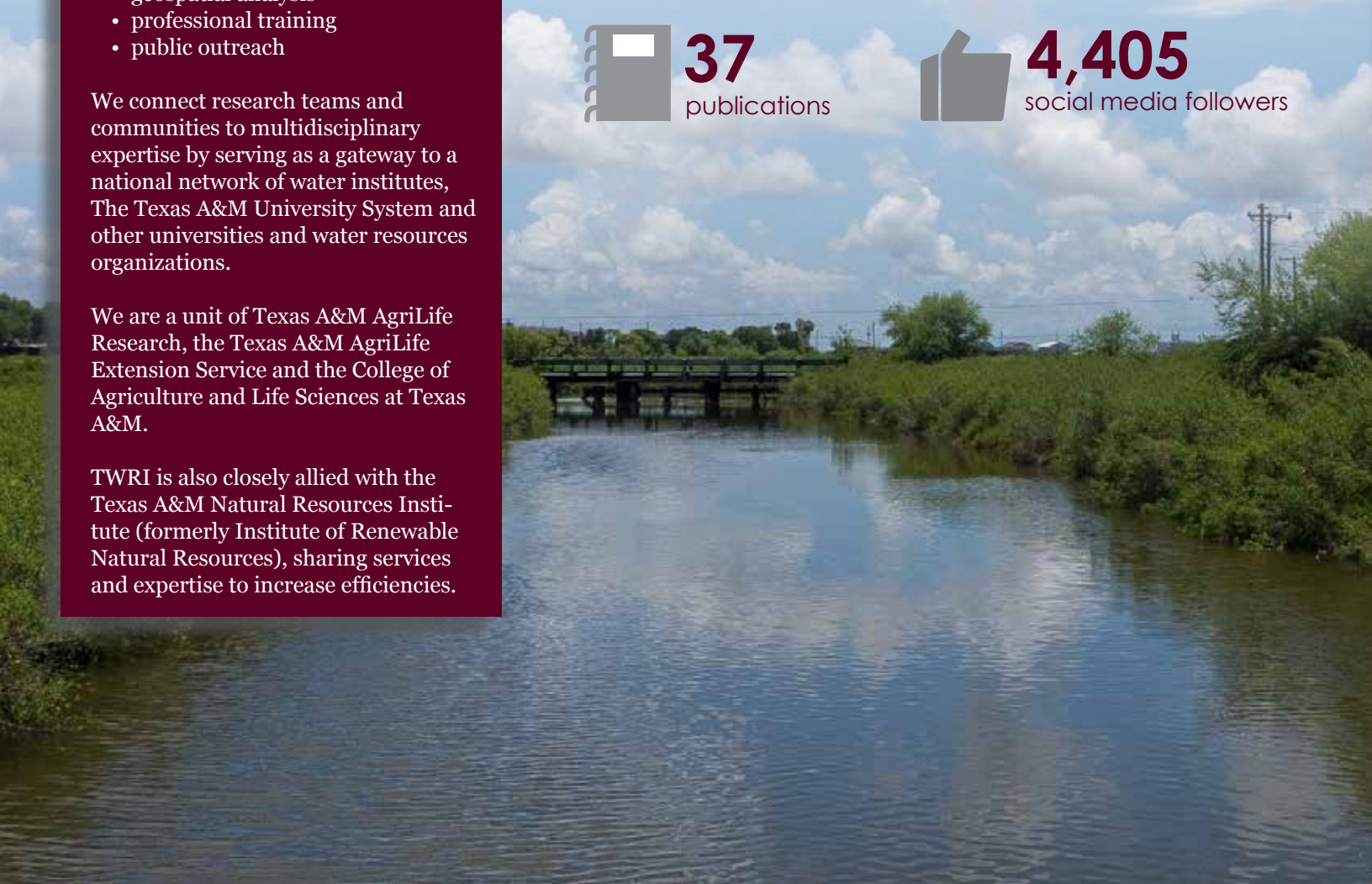
134 presentations to **4,225** people in attendance

26 trainings and workshops, with **1,162** people in attendance

1,734 tweets viewed by Twitter users **652,395** times

37 publications

4,405 social media followers



RESTORE

Our *Water Quality Improvement Program* works with stakeholders to use sound science and public participation to not only restore impaired water bodies but also proactively protect unimpaired watersheds across Texas.

PROGRAM HIGHLIGHT: WATERSHED RESTORATION

As a leader in restoring watersheds, TWRI engages local stakeholders to improve water quality in Texas watersheds through watershed-based plan development and implementation assistance.

In 2016 we worked with stakeholders in 7 watersheds to develop watershed protection and implementation plans, affecting 606 miles of river. In West Texas, local stakeholders proactively worked with TWRI to create the *Upper Llano River Watershed Protection Plan*, which was accepted by EPA and is now being implemented. The *Tres Palacios Watershed Protection Plan* and *Navasota River Watershed Protection Plan* were also approved by the state in 2016.

CONSERVE

Our *Water Sustainability Program* centers on securing municipal, industrial and agricultural water supplies to meet the increasing demand from Texas' growing population.

PROGRAM HIGHLIGHT: OGALLALA AQUIFER

TWRI has collaborated with USDA and university researchers for over a decade to address declining water availability from the Ogallala Aquifer on the Southern High Plans.

Researchers with the Ogallala Aquifer Program (OAP) are investigating ways to conserve water to ensure the region's economic viability. To date, researchers have made advances in irrigation scheduling and automation, subsurface drip irrigation and drought-resistant crop development, saving water and production costs.

Spring boarding from the OAP, we partnered with 6 other land grant universities in the Ogallala region on a Water for Agriculture Challenge grant. AgriLife is further developing its Dashboard for Irrigation Efficiency Management and communicating project research results to producers.

EDUCATE

Our *Water Resources Outreach and Training Program* serves interested citizens, students and water professionals to enhance their understanding of critical water issues and management practices.

PROGRAM HIGHLIGHT: EXTENSION PROGRAMS SUPPORT

TWRI supports Texas A&M's Department of Soil and Crop Sciences' award-winning *Texas Well Owner Network*, which trains and provides screenings for private water well owners, as well as the new *Healthy Lawns and Healthy Waters* program.

TWRI's *Texas Riparian and Ecosystem Education Program* provides trainings and valuable online resources to landowners. To date, it has conducted workshops in 35 prioritized watersheds, impacting 671,238 acres.

Our *Watershed Coordinator Development Program* continues to support watershed efforts across Texas and will expand in the coming year to include new courses on agricultural and urban best management practices and implementing watershed plans.

EXPANDING OUR IMPACT

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NEW PARTNERS

TWRI partnered with more than 140 researchers, 30 agencies, 15 centers, 10 departments, 15 universities, 4 cities, 12 river authorities or water districts, and 12 other groups or individuals.

GROWING TEAM

Our team has doubled in the last two years, enabling us to further our work protecting and conserving water.

EXPANDING RESEARCH PROGRAMS

Little data exists on Texas-Mexico transboundary aquifers. We are enhancing understanding of the Hueco Bolson Aquifer and creating an innovative framework for identifying and assessing all Texas-Mexico border aquifers. This groundbreaking work will allow us to assist other countries develop transboundary water policies.

NEW INNOVATIONS

Our successful Advanced Metering Infrastructure (AMI) project, in collaboration with Texas A&M Engineering Experiment Station, continues to innovate. Along with the City of Arlington, Texas, a web portal was developed providing consumers access to their water consumption data and better manage their water use. The AMI team explored commercialization opportunities through the NSF Innovation Corps program. This program carries new technologies beyond the laboratory to identify market potential and train scientists and engineers to focus research on discoveries that benefit the economy and society.

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SOCIAL MEDIA: TXWRI

Texas A&M AgriLife Research | Extension

Texas A&M University

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