



From May through August, the City protected over 4,000 acres of land, including this stretch of property along the Sabinal River in Uvalde County.

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EDWARDS AQUIFER PROTECTION PROGRAM

NEWS AND UPDATES

Summer in Texas is hot, and this year is no exception. The good news, though, is that the dog days of August are behind us and we're looking forward to fall. But just because it's been hot out doesn't mean we haven't been busy. From May through August this year, the City's aquifer protection program protected 4,040 acres of land over the aquifer's sensitive Recharge and Contributing Zones. And on August 21st, San Antonio City Council members authorized the acquisition of another 2,500 acres of conservation easement lands. That will bring our running total of land protected under the program to over 126,000 acres.

More good news: In July, the results of a City audit of the EAPP were released and the program was found to be in total compliance with its ordinance. No recommendations were made by the City auditors to staff or management. This is great news, and it confirms that your sales tax dollars are being spent efficiently and effectively.

In August, EAPP staff gave a presentation on the EAPP to the Southwest TX Chapter of the American Planning Association. If you or your organization would like a member of the EAPP staff to speak to your group about the program, please contact us via the information below. Thanks very much!

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For more information on the program or to receive quarterly newsletters via email, please visit our new website at:

<http://www.sanantonio.gov/edwardsaquifer>





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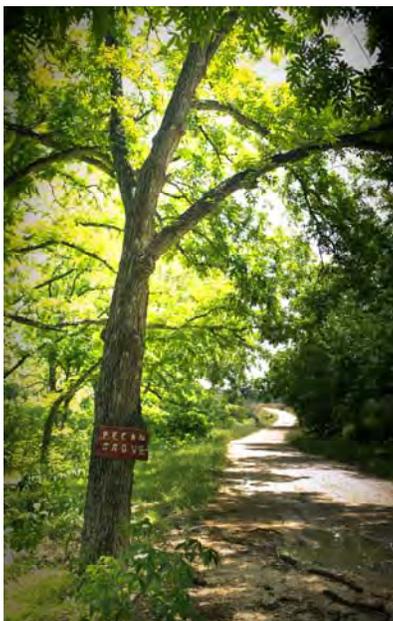
WATER SUPPLY AND DEMAND

THE ECONOMICS OF WATER

Water economics is a term that describes the benefits and costs of water as an economic good. According to the *Economics of Water*, a recent presentation given by Dr. Ari Michelsen at the 2014 TX Water Summit in Austin, TX, water economics is a vital strategy in estimating water demand and supply as well as an important function in determining equitable use. The concept of water economics places value to water based on the services it provides. The services water provides, according to Dr. Michelsen, can be a number of things such as production of goods, food and fiber, quality of life, and various ecosystem services. Water economics, therefore, should be a quintessential aspect of water resources management. However, placing a dollar value to water can be difficult in the market place. According to Dr. Michelsen, water price may not be allocated in certain situations (ecosystem services) or efficiently (full value of water not accounted for). This is often a result, according to Dr. Michelsen, on market failures (few buyers/sellers), laws and regulations, water right ownership issues, and economic incentives (missing). The difficulties of placing a monetary value to water are not just local, but rather global in nature. However, if economics can be used in water resources management, according to the *Economics of Water*, damages from drought and benefits of water supply reliability can be assessed, economic affects of climate change can be estimated, distribution and equity impacts of water can be understood, and economic risk assessments can be evaluated. For more information on the *Economics of Water* and other presentations from the 2014 TX Water Summit, visit: <http://www.tamest.org/events/2014-texas-water-summit-presentations.html>.



Source: *Water, Energy, Environment Center*



SUMMER & FALL ACTIVITIES

FUN FOR THE WHOLE FAMILY

Enjoy these fun filled activities for the whole family:

- Natural Bridge of Caverns — Cave tours, canopy challenge, gem and fossil mining
- Astronomy in the Park — Free event on Wednesday nights beginning at sunset at McAllister Park, 13102 Jones Maltsberger Road
- Silclovía — Free event that closes Broadway Street on Sunday, September 28th from 10 am to 3 pm for families to ride bikes, run, and exercise
- Annual Pecan Harvest Festival — Enjoy orchard tours, live music, pecan tasting, food and entertainment at the Royalty Pecan Farms in Caldwell, Texas on November 1st



For more information on family fun things to do this summer and fall, please visit the websites below:

Natural Bridge of Caverns
www.naturalbridgecaverns.com/

Astronomy in the Park
sanantoniostastronomy.org/calendar/

Silclovía
www.ymcasatx.org/silclovía

Royalty Pecan Farms
www.royaltypecans.com/harvest-festival/



Source: Texas Water Resources Institute, TX H2O Summer Edition, "Protect Our Land, Protect Our Water"

TEXAS NEWS

GROUNDWATER INITIATIVES IN TEXAS

The Edwards Aquifer Protection Program (EAPP) was recently highlighted in the Summer 2014 edition of the Texas Water Resources Institute, TX H2O, publication. The EAPP along with the Austin Water Utility's Water Quality Protection Land program, were mentioned in *Protect Our Land, Protect Our Water*, an article pertaining to groundwater preservation through land conservation of rural properties. The history of each program is featured along with the impetus for both programs — land conservation for water quality protection and supply. Although different mechanisms are used for conserving land as well as funding sources and target areas, both programs have been widely popular and approved by voters numerous times, according to the article. For more information or a copy of the article, *Protect Our Land, Protect Our Water*, visit txH2O online at: <http://twri.tamu.edu/txH2O>.

EDWARDS AQUIFER NEWS

STAGE 4 PUMPING RESTRICTIONS

The Edwards Aquifer Authority (EAA) recently declared Stage 4 pumping restrictions for users within the San Antonio Pool. As of August 12th, the EAA confirmed that the 10-day average water level readings of the J17 index well in Bexar County dropped below the Stage 4 threshold of 630 feet above sea level. The San Antonio Express-News reports that the water levels are the lowest in nearly 20 years. According to the EAA, the Stage 4 restrictions will remain in effect as long as the water level of the J17 well stays below the threshold. Stage 4 restrictions apply to the Edwards groundwater permit holders authorized to pump more than three acre-feet annually, according to the EAA. The EAA encourages residents and businesses who receive their water from a public water system to contact their water provider for more information on how the restrictions may affect them.



Source: San Marcos Mercury

Useful Links

Texas A&M AgriLife Extension Service:
<http://agriflifeextension.tamu.edu/>

San Antonio Water Systems
<http://www.saws.org/>

Edwards Aquifer Authority
<http://www.edwardsaquifer.org/>

TCEQ Water Homepage
http://www.tceq.texas.gov/agency/water_main.html

CALENDAR OF EVENTS

UPCOMING 2014 FALL EVENTS

Don't miss out on these informative events regarding water and land conservation related issues:

- TCEQ 2014 Water Quality & Storm Water Seminar - Austin — September 16-17
- Land Trust Alliance Rally 2014 — Providence, RI — September 18-20
- Texas Water Conservation Association 2014 Fall Conference — San Antonio — October 15-17
- Texas Rural Water Association 2014 Fall Management Conference — San Antonio — October 15-16
- American Water Summit 2014 — Houston — October 23-24
- International Water Conference — San Antonio — November 16-20



Source: Texas A&M AgriLife Extension, Texas 4-H

YOUTH WATER PROGRAMS

TEXAS 4-H

Texas 4-H is an interdisciplinary educational program for youth, which offers special educational opportunities to members in cities, small towns, suburbs, and rural communities. The program is managed by the Texas A&M AgriLife Extension Service and has been around for over 100 years. According to the Texas A&M AgriLife Extension Service, over 65,000 Texas children are enrolled in 4-H community clubs throughout the state and another 850,000 get involved in 4-H through school activities, after-school programs, or neighborhood and youth centers. The history of 4-H started at the turn of the century during the rapid changes taking place in rural America, which led educators to find ways of incorporating learning with the needs of rural families. The four leaf clover emblem that represents 4-H signifies head, heart, hands, and health. Texas A&M AgriLife Extension has been an integral part of the program since 1906 and offers membership through local county extension offices. Programs offered by Texas 4-H include environment/health, plants and animals, science and technology, leadership, citizenship, consumer/family, and healthy lifestyles. One program in particular, the water project, allows youth to explore the importance of water in everyday life and water conservation. For more information about this program or other programs offered by Texas 4-H, visit: <http://texas4-h.tamu.edu/>.

DID YOU KNOW?

- Texas has more than 200,000 miles of rivers and streams
- A watershed is one system consisting of a river, floodplain, and riparian zone
- Watersheds function as ecosystems. One component affects the rest of the system including beneficial or negative impacts. As water flows through the system, impacts are cumulative
- Key functions of riparian vegetation include reducing erosion, trapping sedimentation, and dissipating energy
- Unhealthy watersheds can result in degraded water quality, damaging floods, high sediment loads, and lower base flows

Source: Texas Riparian Association

WATER CONSERVATION NEWS

RIPARIAN RESTORATION PROJECTS

Riparian areas are an important part of our natural waterways and consist of the vegetation along creeks, streams, and lakes. They play an important function in water quality and quantity by absorbing pollutants and runoff from uplands as well as reducing sedimentation from flood events. Riparian areas are sensitive ecosystems and are vulnerable to certain land use activities such as grazing, deforestation, and manipulation of stream channels. Fortunately, collaborative efforts through watershed protection plans and conservation projects have helped restore and enhance these sensitive systems. The Cypress Creek Watershed Protection Plan, a water quality management tool, was recently submitted to the Texas Commission on Environmental Quality for approval in April. This plan was created in 2008 by key stakeholders to determine several best management practices for improving the water quality of Cypress Creek, which is a spring-fed creek in the town of Wimberley. Other efforts, such as a recent publication by the Texas A&M AgriLife Extension Service, Texas Water Resources Institute, and U.S. Department of Agriculture, provide management techniques to landowners interested in improving and enhancing their riparian areas. Recommendations such as reseeding native grasses and forbs, proper plant species selection, managing along croplands, proper grazing techniques, and basic monitoring methods are provided in this publication. The publication, referred to as the *Riparian Restoration on Farms and Ranches in Texas*, can be downloaded for free or purchased at: <http://www.agrilifebookstore.org/product-p/wf-010.htm>.



Source: The Meadows Center for Water and the Environment — Cypress Creek Project