

# EAHCP STEWARD

News from the Edwards Aquifer Habitat Conservation Plan - July 2019

## The “Grande Dam(e)” of San Marcos

*Texas State University Begins Stabilization of the Aging Spring Lake Dam*



The Texas State team, left to right, Barbara Delgado, Doug Bynum, Joel Trevino

Iconic. Historic. Beautiful.

Those are the words you hear most when talking about the area around Spring Lake Dam in San Marcos, Texas. Given the gravity of those descriptors, you clearly understand why Texas State University, which owns the structure, is focused on preserving the dam and all that it has created.

“Texas State purchased the land which encompasses Spring Lake back in 1994,” said Doug Bynum, Texas State University’s director of

facility operations. “The dam which creates Spring Lake was included in the acquisition and so we are responsible for maintaining it. We have been actively monitoring its structural integrity for years, but after the flooding in 2015, we knew we had to initiate actions to stabilize the dam. There was way too much seepage coming from the bottom of the structure and that was a very red flag for us.”

The dam was initially constructed in 1849 but researchers believe it was reconstructed at least once since that time. Historical records show that the current configuration and general appearance of the dam date back to 1909. The dam is composed primarily of rock fill and cedar post stabilizers with a clay liner on the upstream slope. Several large trees growing along the crest of the dam are thought to have been originally planted as reinforcement for the structure.

## Spring Lake Dam - Continued

Spring Lake Dam creates unique social and biological resources, including providing habitat for eight federally-listed threatened and endangered species. Spring Lake and the area downstream of the dam contain high densities of fountain darter, San Marcos salamander and Texas wild-rice populations. Since 1945, glass-bottom boats tours have provided the public an opportunity to see the San Marcos River origin bubbling from the Edwards Aquifer and showcased the importance of water conservation, habitat preservation, and native species diversity.

Because of its historical significance, ecological importance, and educational value to the community and visitors alike, Texas State sought input from many stakeholders and regulatory authorities as it began the long road to dealing with problems with an eroding Spring Lake Dam. Bynum said they gathered as many of the regulatory agencies and stakeholders together after the 2015 flood to begin some sort of corrective construction project on Spring Lake Dam. The Federal Emergency Management Agency (FEMA) was already on the Texas State campus due to the flood damage there, so they were the first group Bynum's team approached. Then came the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Texas Department of Energy Management, Texas Commission on Environmental Quality and other local and regional stakeholders. The first meeting of the minds didn't make much progress until the roomful of representatives walked out to actually see the site in question. After a few minutes of observing what was physically happening to the dam, FEMA agreed to take the lead and to bring some financial resources to the table. The others sorted out their roles and the long process of preparation for construction began.

Bynum noted that this round of construction is only an interim solution to an immediate potential safety problem created by the dam's age and the significant flooding from 2015. He said Spring Lake Dam is not designed to meet modern standards. And given that fact, anytime the San Marcos River gets high stream flows from storm events, water overtops the dam and causes gradual deterioration. Plus, high flows have scoured the associated embankments and spillways.

"We know that a comprehensive solution must be undertaken in the future, but that will occur after this emergency stabilization project is completed," Bynum acknowledged. "Just getting to this construction was a long process because this location is biologically sensitive and historically significant. So, we were all very happy the day construction began. And it will be an even bigger cause for celebration when this project wraps up later this summer."

As Bynum mentioned, this project has had a detailed and focused approach to preserving endangered species and their habitats. Liza Colucci, with Zara Environmental, is the lead biologist on the project and concurs that the biological assessment and preservation efforts have truly been collaborative and meaningful.

"Because there is a [U.S.] Fish and Wildlife Service incidental take permit associated with this area, we have been working hand in hand with the Fish and Wildlife biologists in San Marcos to ensure we are protecting the endangered species before any heavy machines or workers enter the areas around Spring Lake Dam," Colucci explained. "In fact, this has been a great opportunity for Fish and Wildlife to collect some fountain darters and salamanders for the refugia located in San Marcos, which they are required to do each year as part of the Edwards Aquifer Habitat Conservation Plan. We have also been in regular contact with the Meadows Center [for Water and the Environment] at Texas State on protection of Texas wild-rice. Any time contractors are working in the water, we have a biologist there to inspect the area prior to work beginning. Everyone involved with the project understands our role and has been thoroughly supportive."

The biological team's responsibility is to ensure that the species are found and moved to other locations before work on the dam for the day is undertaken. They also monitor the turbidity and overall water quality in

## Spring Lake Dam - Continued

the river near the dam as construction has progressed to make sure the species aren't inadvertently harmed by excess dirt or other debris running off from the construction site.

"Overall, I think things have progressed nicely so far," Bynum concluded. "We still have a few months to go, but with everyone pulling together, communicating well and headed in the same direction, we're confident that we can solve our near-term issues with Spring Lake Dam and then be ready to look at that long-term fix."

# EAHCP STEWARD SHORT TAKES



### Thank You Dianne Wassenich

At the Science Committee Meeting, Scott Stormont, EAHCP Program Manager, presented Dianne Wassenich the 2019 EAHCP Distinguished Service Award in recognition of her years of dedicated river stewardship, advocacy, and leadership. Congratulations, Dianne!



### Science Committee Meeting

The next EAHCP Science Committee Meeting will be held September 11, 2019, at San Marcos Recreation Hall.

At the previous meeting, Science Committee members took some time to tour the EAHCP Refugia at the San Marcos Aquatic Resources Center. The group is watching how salamanders are tagged for identification purposes.

## Volunteer Opportunities

### Volunteer Restoration Diver – Texas

**Volunteer Opening** - Volunteer Restoration Diver - San Marcos, New Braunfels, Texas

Start Date - 07/01/2019

Last Date to Apply - 07/25/2019

**Description** - Volunteer divers will assist in aquatic restoration activities including removing non-native aquatic plants and planting native aquatic plants to improve habitat for the endangered fountain darter in the Comal River in New Braunfels, Texas. Volunteers will snorkel or dive along with aquatic technicians to carry out multiple tasks including planting, vegetation removal, aquatic gardening.

**Qualifications** - Please be SCUBA certified or other qualifications include life guard experience or strong swimming skills. -Volunteer should be comfortable working in and around water for long periods of time and able to lift 50 lbs -Please be located near San Marcos or New Braunfels Texas -Provide own equipment including snorkel,mask, dive booties, wet suit. -Volunteers should be interested in aquatic biology, restoration ecology and endangered species ecology. Please send short letter of interest to the below email.

**Contact Person** - Casey Williams - [cwilliams@bio-west.com](mailto:cwilliams@bio-west.com)

**More Information** - <https://wfsciobs.tamu.edu/iobs/volunteer-restoration-diver-texas-2/>

### Saturday July 20- Sessom Natural Area Workday

**Where:** Sessom Natural Area

Meet at Ella Lofts parking lot- 817 Chestnut - 6 spaces are designated for park users.

**Time:** 8-10am

**Activity:** removing invasive ligustrum, constructing contour terracing, dragging small brush to be chipped; pulling invasive seedlings, broadcasting native seed and removing trash.

**Special Instructions:** wear closed toed shoes; tools will be provided.

**Contact:** Eric Weeks ([eweeks@sanmarcostx.gov](mailto:eweeks@sanmarcostx.gov)) to volunteer

Here are some other groups you might consider contacting to volunteer to help the EAHCP keep the Comal and San Marcos Springs and Rivers clean.

#### New Braunfels

Headwaters at the Comal Springs - [www.headwatersatthecomal.com](http://www.headwatersatthecomal.com)

Comal County Master Gardeners - [www.txmg.org/comal](http://www.txmg.org/comal)

Comal County Master Naturalists - [www.comal.agrilife.org/master-naturalists](http://www.comal.agrilife.org/master-naturalists)

Comal Trails Alliance - [www.comaltrails.org](http://www.comaltrails.org)

Native Plant Society of Texas-New Braunfels Chapter - [www.npsot.org/wp/newbraunfels](http://www.npsot.org/wp/newbraunfels)

Native Plant Society of Texas - Lindheimer Chapter - [www.npsot.org/wp/lindheimer/](http://www.npsot.org/wp/lindheimer/)

Comal County Conservation Association - [www.comalconservation.org](http://www.comalconservation.org)

#### San Marcos

San Marcos River Foundation - [www.sanmarcosriver.org](http://www.sanmarcosriver.org)

San Marcos Greenbelt Alliance - [www.smgreenbelt.org](http://www.smgreenbelt.org)

Hays County Master Naturalists - [www.haysmn.org](http://www.haysmn.org)

Hays County Master Gardeners - [www.txmg.org/hays](http://www.txmg.org/hays)

Discovery Center - [www.sanmarcostx.gov/873/Discovery-Center](http://www.sanmarcostx.gov/873/Discovery-Center)

Conservation Crew - Email Eric Weeks at [EWeeks@sanmarcostx.gov](mailto:EWeeks@sanmarcostx.gov)