

NEWS DROP

M A G A Z I N E

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EDWARDS AQUIFER
AUTHORITY

Edwards Aquifer Authority

Legislative Update from the General Manager

With the 86th regular session of the Texas Legislature in our rearview mirror, we can look to the future with a renewed sense of confidence that the good work of the EAA will continue on sure footing for the foreseeable future.

HB 2729 – Authored by Rep. Ina Minjarez, helps to further clarify that our enabling statute, the EAA Act, is henceforth the primary law on which we can rely, rather than the broader statewide groundwater law found in Chapter 36 of the Water Code. More specifically, HB 2729 incorporates the most important and administratively relevant elements of Chapter 36 into the EAA Act. The effect of this is that the portions of the general law in Chapter 36, which we have historically relied on as the legal basis for carrying out much of the day to day operational functions of our agency, can now be found in our enabling statute.

So in the years ahead, as our lawmakers grapple with management of groundwater around the State of Texas, they can modify Chapter 36 as necessary without the burdensome complications created by the EAA and its unique character as a groundwater regulatory authority. As a result, it will be less likely that future changes in statewide water law will have unintended consequences for the Edwards Aquifer and our present and future Habitat Conservation Plan, because our mission will be largely self-contained within one body of law – the EAA Act – and thus insulated from changes to general water law.

Additionally, we now have a requirement to report to the Edwards Aquifer Legislative Oversight Committee each biennium as a means to keep the legislature informed of any issues or matters of interest relating to the Edwards Aquifer and its management as we approach each legislative session.

The other notable change brought about by HB 2729 is a limitation on how much the EAA Board of Directors may increase aquifer management fees (AMF) in a given year. The bill limits AMF growth to eight percent per year for non-agricultural permit holders. Agriculture fees remain set in statute at \$2 per acre-foot. Although, we have held the line on AMFs since 2012, we welcome the imposed limitation because it fosters responsible governance and helps bolster our commitment to exemplary fiscal stewardship as we continue to focus on building greater shared value around our mission.

HB 3656 – Authored by Rep. Andy Murr, clarifies previously unsettled questions about what should happen to certain Edwards irrigation water rights when historically irrigated farmland becomes developed for non-agricultural uses. Specifically, HB 3656 codifies into the EAA Act a process whereby landowners with Edwards water rights originally permitted for and restricted to agricultural use on historically irrigated land may change and transfer their authorized (permitted) water use to non-irrigation use, if and when their land is developed and can no longer be used for agricultural purposes. This bill protects the property right interest in Edwards irrigation groundwater and directly addresses a legal dispute over the EAA Board of Directors' authority to allow the conversion of restricted irrigation water to other, more broad uses, and validates the board's past actions where these conversions have been previously approved.



Two bills in particular – HB 2729 and HB 3656 – were passed into law this session and each help to eliminate uncertainties around the EAA mission.

Included in the bill is a process whereby Edwards permit holders may contest applications by other Edwards permit holders seeking to convert their restricted irrigation water to other uses.

In the context of the big picture of the sustainability of the Edwards Aquifer, these changes to the EAA Act eliminate a number of uncertainties that could have clouded the effective management of the Aquifer well into the future. With these changes, however, our focus on building greater certainty around this vital resource and the various stakeholder interests that rely on it gains new ground. We look forward to working with all our constituents in new and exciting ways that continue to bring us together as partners in managing, enhancing, and protecting the Edwards Aquifer system.

ROLAND RUIZ

FEATURED STORIES | SUMMER 2019



EAHCP Volunteer, wearing a blue shirt, at the San Marcos River.

EAHCP

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Five-Year Cycle for Monitoring Vegetation Completed

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17. GROUNDWATER CONSERVATION GRANT PROGRAM

Program Honored with the "Water Conservation & Reuse" Award



Communications & Development Intern, Elexus Liggins, on the left, at the 2019 San Antonio Rodeo EAA's Booth.

EAA BOARD OF DIRECTORS MEETINGS

JUNE 11 | JULY 9 | AUGUST 13 | SEPTEMBER 10

*EAHCP Completes Five-Year Cycle
For Monitoring Vegetation*



Putting Native Vegetation **ON THE MAP**

“It

was a sizable task, and maybe a bit of a brain tease at the start.” Those few words from Casey Williams, a BIOWEST biologist, gives you an idea of the thoughts running through his mind as he launched his kayak into the San Marcos River to begin mapping the submerged aquatic vegetation (SAV) of the entire San Marcos and Comal River systems.

“I had been doing some spot [SAV] mapping in the river systems before the Edwards Aquifer Habitat Conservation Plan (EAHCP) five-year program began in 2013, but thinking about getting through the entire San Marcos and Comal Rivers was a new hill to climb,” Williams said. “It wasn’t just the magnitude of the effort, but I also wanted to make sure that the final product was beneficial to the EAHCP team members.”

To create the map, Williams would head out in a kayak with his portable GPS system, paddle around a patch of plants and record the GPS coordinates into his device. In addition to the plant location information, Williams would make notes of the percentage of each plant species within a patch. Kristina Tolman, EAHCP Coordinator, then used ArcGIS to calculate the total coverage of each SAV species for the 2013 and 2018 mapping events within the San Marcos and Comal systems.

Both Williams and Kollaus commented on the positive improvements of Texas wild-rice in the San Marcos River. From 2013 to 2018, Texas wild-rice has expanded an estimated 5,914 square meters, a 240 percent increase, through planting and natural expansion. Overall, nearly 70 percent, 35,000 square meters, of the San Marcos habitat was covered with non-native plants in 2013. However, by 2018, that invasive plant covering had been reduced to 22,000 square meters.

Texas wild-rice in the San Marcos River, TX

“One very important aspect of this five-year mapping program is that we use the data to update the biological goal reporting we must provide to the U.S. Fish and Wildlife Service as part of our Incidental Take Permit, which is what governs the whole EAHCP program,” Kollaus stated. “We have to provide data on how our habitat restoration programs are effecting the endangered plant and animal species within both river systems. So, the detailed mapping program plays a key role in helping us document those stories.”

“It is improbable to think that we might someday have 100 percent coverage of native plants in this Edwards Aquifer fed ecosystem. We are really shooting to reverse the ratio of natives to non-natives,” Kollaus concluded:

“...We just want to give our native vegetation a fighting chance to flourish and it looks like we’re starting to win that battle.”

The 2013 SAV mapping effort set the baseline for future years so the EAHCP could monitor progress in removing non-native plants in the system and replacing them with native species. The planting of native vegetation was expected to have a reciprocal positive impact on the endangered species living in the river systems, as well as the general health of the overall ecosystem.

Spotlight

Kristy Kollaus, EAHCP Environmental Scientist, has also witnessed the native vegetation improvements and stated that this whole process has helped the EAHCP team members adapt to new findings.

“One of the things we learned from reestablishing native plants in the river systems is that some native species fare better in certain locations than others,” Kollaus noted.



By the Numbers Changes in Aquatic Vegetation - 5 Year Study

COMAL	2013	2018
<i>Cabomba</i>	9%	12%
<i>Hygrophila</i>	30%	19%
<i>Ludwigia</i>	2%	4%
<i>Nuphar</i>	5%	2%
<i>Sagittaria</i>	8%	14%
<i>Vallisneria</i>	42%	43%
Other	4%	6%

SAN MARCOS

<i>Cabomba</i>	6%	3%
<i>Colocasia (Elephant Ear)</i>	10%	2%
<i>Hydrilla</i>	36%	33%
<i>Hydrocotyle</i>	—	0%
<i>Hygrophila</i>	20%	19%
<i>Ludwigia</i>	—	1%
<i>Potamogeton</i>	6%	3%
<i>Sagittaria</i>	5%	9%
<i>Zizania (Texas Wild-Rice)</i>	9%	27%
Other	8%	3%

● Non-Native

Native aquatic vegetation: *Ludwigia*, *Sagittaria*, and *Vallisneria* in the Comal River, TX

Spotlight



The Comal and San Marcos Rivers look very different today than five years ago. The EAHCP programs have reinstated native plants to the point where, “The elephant ears are gone and the endangered native Texas wild-rice has really grown beyond what I anticipated.”

Casey Williams, BIO-WEST Biologist



Conservation Crew Volunteers

WHILE THERE IS

On-going research and science driving the Edwards Aquifer Habitat Conservation Plan (EAHCP), there is no short supply of volunteer work happening in New Braunfels and San Marcos.



And summertime is peak season for many of those efforts, like those by a group of volunteers in San Marcos called the “Conservation Crew.”

“We developed the concept of a Conservation Crew in 2013 to help implement our responsibilities under the EAHCP,” said Eric Weeks (Habitat Conservation Plan Specialist). “Each day, we’ll have four to six Crew members head out in teams along the river to help keep it free of debris and, most importantly, to connect with as many visitors as possible in explaining the uniqueness of the San Marcos River and the endangered species living there.”

While some of the members are paid by Texas State [University], others are earning college credits required for their majors with this work. And fortunately, some people just volunteer for free just because they love the river,” Weeks said.

Put Me In, Coach!

Volunteer Programs Thriving in New Braunfels & San Marcos

Another volunteer group protecting the San Marcos Springs is the San Marcos River Foundation (SMRF). And while SMRF does their fair share of river cleanups and other activities, a substantial focus is on protecting the recharge zone above the San Marcos River by acquiring easements to keep that land undeveloped.

A short drive south from San Marcos, you’ll find the Headwaters at the Comal, a nonprofit group where volunteers contribute their time, talent and dollars to protect the Comal Springs and Comal River. Other volunteer groups in New Braunfels provide support in planting native riparian vegetation around eroded banks along the Comal River and litter cleanups in the Dos Rios watershed.

River stewardship runs deep in the heart of these Spring communities. The EAHCP program is thankful for the hard work volunteers dedicate to improving the health of the Central Texas spring ecosystems.

For more information on volunteering in the San Marcos and Comal Rivers, please visit eahcpsteward.org/volunteer.

Spotlight



The EAHCP’s collaboration among local contractors and public, private, and volunteer groups has allowed for significant removal of invasive elephant ear plants with corresponding increases in native riparian vegetation and contributions to bank stabilization projects.

In 2016, the Texas Commission on Environmental Quality presented the EAHCP and Partners with the **Environmental Excellence Award** for their efforts toward habitat restoration.

HOME AWAY FROM HOME

EAHCP OFFICIALLY OPENS LONG-TERM REFUGIA FOR THREATENED & ENDANGERED SPECIES

Scientists know that at some point, there will be another drought of record matching or surpassing the event of the 1950s.



Texas Blind Salamander

When that occurs, they will be much more prepared than the first time around. Part of that preparation is securing a safe haven for federally-protected species which rely on the cool, stable aquatic environment they live in near the Comal and San Marcos Springs and Rivers. Think of it as a home away from home for the Edwards Aquifer endangered species.

The culmination of several years of planning for that refuge came about on May 25th as officials from around the Edwards Region gathered to officially open the the new Edwards Aquifer Habitat Conservation Plan (EAHCP) refugia facility at the San Marcos Aquatic Resource Center (SMARC) as well as a backup refugia facility located in Uvalde.

The new building utilizes the U.S. Fish and Wildlife Service's designs to meet certain specifications for the threatened and endangered species, including tanks for housing the species, security systems, energy-saving solar panels and a quarantine building. The quarantine building at SMARC contains separate plumbing, air conditioning, and electrical systems that separate the wild specimens from the healthy, preexisting specimens housed in the refugia building tanks.

"The Refugia Program is designed to create a habitat in a laboratory that endangered species collected from the wild can be housed during extremely low springflows in the natural environment," said Scott Storment, EAHCP program manager. "Our goal is to house the species while learning as much as we can about them in order to grow species populations."

Spotlight

"The bottom line goal of this refugia program is compliance with the Incidental Take Permit issued by the U.S. Fish and Wildlife Service which is a crucial part of the EAHCP," said Edwards Aquifer Authority Board Chair Luana Buckner.

"The permit actually helps drive many of the decisions we make as a partner in the EAHCP. And so we were very excited to see the EAHCP achieve the milestone of completing this state-of-the-art laboratory in San Marcos."



Luana Buckner, EAA Board Chair



Texas Blind Salamander

Living + Learning

AT THE EAA

By: Elexus Liggins

Communications & Development Spring 2019 Intern



The Edwards Aquifer Authority (EAA) is fully committed to providing exciting, engaging and stimulating internships to students who wish to pursue work in support of the mission.

The opportunity for students to practice what they are learning through their respective curriculums, and enhance their practical knowledge while acquiring professional insights, is clearly worth pursuing.

Simply put, the Intern Experience at the EAA is wonderful in many respects, and one that is highly recommended to any student seeking an opportunity for hands-on work in a field that either directly or indirectly relates to their current education and prospective career pursuits. For those who live to learn, there are few other opportunities that compare.

Currently, the EAA offer 3 types of internships: semester internships, high school internships, and the leadership internship program, which is a two-semester internship. The semester program involves college students and rotates through Fall, Spring, and Summer every year. It is driven by specific needs requests from various departments. High school internships are offered for the summer. The high school internships are part of the EAA's community outreach efforts. As for the leadership internship program, an intern is placed on the path of learning within both the Aquifer Management and Administrative and Financial Services Division.

There are two positions allocated for the leadership internship program. The two interns essentially shadow an Executive Director's division, by working in each of the divisions departments. **Maggie Veliz**, EAA Employment and Benefits Supervisor, oversees the internship programs.

She and her team undertake a myriad of tasks to accomplish their work, including posting internships and collecting candidates, coordinating interviews, and support in choosing and onboarding the successful candidates.

Every intern experience is different, based on the needs of the respective department.

However, there are some essential skills that are a part of

Spotlight

“Take advantage of the opportunities you come across by nurturing that passion burning within you and once you graduate, take that passion and go light your world.”



Maggie Veliz,
EAA Employment & Benefits Supervisor

the learning experience.

Chief among them: an appreciation for paying attention to what is being said and done by supervisors and fellow employees, who bring and are willing to share their expertise to those willing to take it to heart.

Additionally, interns typically walk away with a heightened appreciation for the Aquifer and its critical role in creating and sustaining the livelihood of numerous cities and towns, and the millions of people who live and work in the Aquifer Region.

My own experience as an intern in the Communications & Development department allowed me to gain a greater appreciation for the variety of techniques used to communicate the EAA message.

Whether it was supporting the San Marcos Aquatic Resource Center Refugia Grand Opening or participating in the exhibit presentation at the San Antonio Livestock Exposition, the opportunities to present and share the EAA's mission of managing, enhancing, and protecting the Edwards Aquifer should always be planned well, and taken seriously.

Spotlight

“My own experience as an intern in the Communications & Development department allowed me to gain a greater appreciation for the variety of techniques used to communicate the EAA message.”



Elexus Liggins,
EAA 2019 Spring Intern

Plus, it was great to be paid, and work around some fantastic mentors!

There were other interns this past Spring at the EAA. Among them was **Ayesha Meghani**, who served in a Pilot Internship, and had the pleasure of working in Information Technology, Human Resources, External/Regulatory Affairs and Finance.

A student of the University of Texas at San Antonio pursuing a Public Administration degree, she favored the legal department, as it best correlated with her interest. She was able to work with the permit team and other areas of the ERA.

A highlight of her time here was when she went on a field trip to a farm in Uvalde to visit a permit holder and witnessed an inspection.

Ayesha sees where the work product not only positively impacts today but creates a ripple effect for future generations.



Ayesha says her intern experience impressed upon her a clear awareness of the efforts by the EAA to develop a legacy in its work.

CONT. NEXT PAGE

LIVING & LEARNING CONT.

Another intern, **Aaron Ramirez**, worked in the Information Technology Department.

A Saint Mary's University student majoring in Computer Applications, he couldn't have found himself in a more satisfying and beneficial situation.

While here he had the responsibility of cleaning and wiping 40 computers.

He also had the occasion to order different products which involved talking to vendors, getting price quotes, and submitting purchase orders, among other things.

His lasting impression is that he realized that the EAA is more than he initially presumed.

In his mind, the EAA goes beyond its daily tasks of website data collection, aquifer management and other tasks that are at the core of its mission.



Aaron realized the EAA is more than he initially presumed; the dedication and passion of EAA's staff is what Aaron will long remember.

Students who have interest in studying current internship opportunities should visit **edwardsaquifer.org** for more information.

Thru the Chute to the Comal River, We Go!

Thru the Chute is an annual cardboard boat race held at the New Braunfels City Tube Chute hosted by the New Braunfels Parks and Recreation Department.



Every April, on the banks of the Comal River, Thru the Chute enthusiasts gather eagerly watching cardboard boats sail through the water.

It's where fun meets water and raising awareness for the shortest river in Texas, the Comal River, which is also where the Comal springs discharge. These springs are home to some of the endangered species that live in the Edwards Aquifer.

As opening festivities commenced, it was finally EAA's turn, so the team of three hopped aboard their cardboard vessel with no decorations or showy theme in sight, nothing but their comradery and sleek, streamlined boat ready to secure the winning time.

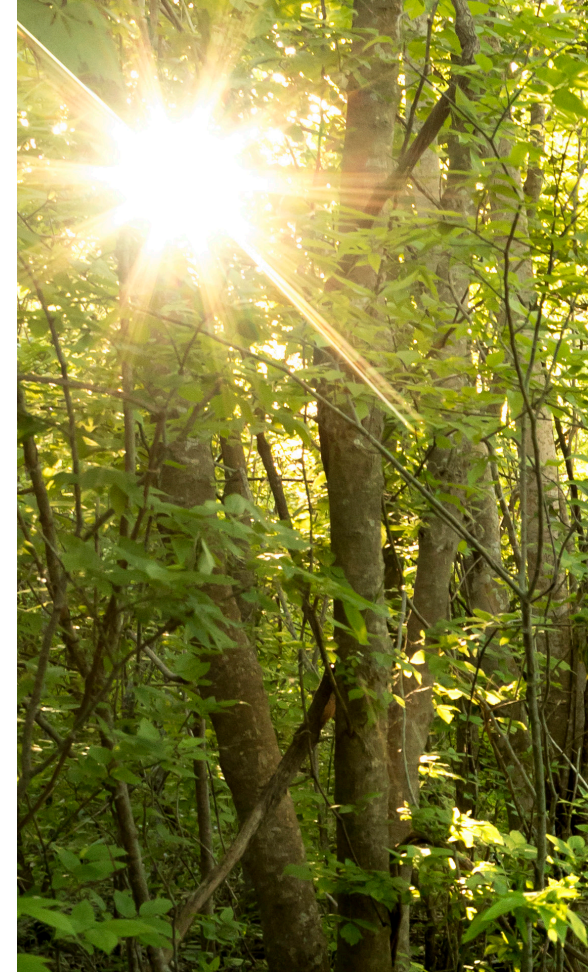
The EAA has had a presence at the event over the past few years, but this year the 1st place victory in the expert class was secured by **Branddon Trigg, Chris Morgan, and Charles Bradshaw!** Way to go!

To relive the team's victory head over to the EAA's official YouTube channel to watch their video at:

<https://youtu.be/MdZH23AGk2Y>

Above: Chris Morgan, Branddon Trigg, and Charles Bradshaw.

On the Right: The 1st place trophy that Roland Ruiz (Photo: second from the left) presented, along with captain hats.



The EAA's Groundwater Conservation Grant Program was recently recognized and awarded the "Water Conservation and Reuse Award" for a non-utility direct by the American Water Works Association.

Since 2009, the EAA Groundwater Conservation Grant Program

has worked towards implementing best management practices. The grant is made available to Edwards Aquifer permit holders interested in carrying out innovative techniques to conserve water.

In the years following its inception, the grant funded leak detection and water saving lavatory projects. In 2016, the EAA's Grant Program began focusing on awarding funding through the EAA Agricultural Irrigation Efficiency Improvement Program, which supports practices that can be used in an agricultural setting to save water.

These practices include sprinkler and micro-irrigation equipment systems for permitted irrigation users.

The application process is encouraged through added incentives for the conversion of less efficient to efficient irrigation methods, such as installation of linear or center pivot sprinklers and subsurface drip irrigation systems. Since the program's more recent focus on agricultural irrigation efficiency there has been 700 acre-feet of water saved annually. Furthermore, in 2018 the grant funded projects that totaled about 163.59 acre-feet or 53,305,965 gallons.

Isabel Martinez, Conservation Coordinator for Water Resources at the EAA, oversees the program and can vouch for the effectiveness and success of the implemented water saving practices. "It's a privilege to work with our grantees on the projects that are funded through the EAA Groundwater Conservation Grant Program. The grant program allows the EAA to connect with our permit holders and develop partnerships that have contributed to an increase in conserving more water over the years.

The AWWA is an international nonprofit society, with an emphasis on science and education, focused on the management of water. The AWWA's Conservation and Reuse Division honors conservation and reuse practices pertaining to water.

Crescent Bend in Bexar County, TX

Spotlight

"The grant program... [is] a testament to the EAA's commitment of working with water users in the region to effectively manage and protect the Edwards Aquifer."



Isabel Martinez, EAA Conservation Coordinator for Water Resources



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Cover: State Natural Area in Bandera County, TX | **Back Cover:** Cypress Creek in Wimberley, TX