HABITAT CONSERVATION PLAN EDWARDS AQUIFER
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Welcoming Scott Storment

New EAHCP Program Manager talks career experience and expectations

Scott Storment outside the Edwards Aquifer Authority headquarters building.

Scott Storment is new to the Edwards Aquifer Habitat Conservation Plan (EAHCP), but he has a wealth of environmental and program management experience very similar to the EAHCP's mission. The *EAHCP Steward* had the opportunity to sit down with Storment to get his thoughts about those past projects and this new major step in his career.

EAHCP Steward: Welcome to the EAHCP team. We know you've been on the job a handful of weeks and are still getting the lay of the land at the EAA, but there are lots of people interested in getting to know you. Give us a quick rundown of your educational background and professional experience.

Storment: It is definitely a pleasure to be at the EAA and managing the EAHCP. I earned a bachelor's degree from Texas A&M before heading to the University of New Mexico to do my graduate studies in Natural Resource Planning and Environmental Finance. After getting my master's degree there, I was fortunate to lead a binational watershed enhancement program as a staff member for the Texas Natural Resources Conservation Commission, which is now the Texas Commission on Environmental Quality. Our job was to develop best practices for improving water quality in the Rio Grande River watershed that encompassed

Colorado, New Mexico, Texas and Mexico. That project involved dealing with some endangered species and their habitats as well. In addition to environmental conditions, we also worked with communities in that watershed and the Mexican government to balance the economic development with environmental needs. After completing work on the Rio Grande Alliance, which is what that project was called, I transitioned to using some of my environmental finance training in the wastewater infrastructure development sector. There I managed some programs aimed at helping the half million people living in the "Colonias," which were substandard housing communities along the Texas-Mexico border. That experience led me working in the Governor George Bush administration as the first director for Colonias Initiatives. We helped people who were desperately poor connect their small homes to sewer lines to improve sanitation there. From there I transitioned the North American Development (NAD) Bank in San Antonio and worked on water, wastewater, energy and air quality projects. This was also the timeframe when renewable energy supplies were being developed and so I had the opportunity to learn a lot about solar, wind and even bio-gas power. Everything the NAD Bank financed had to include some sort of environmental improvement aspect to it. I left the bank to start my own environmental services company. We did projects in the U.S. and Mexico and I had the good fortune of doing some work for major companies like USAA. One of the things I managed was the Water Forum, a local event that focused on regional water issues. That event helped me get to know some of the folks from the Edwards Aquifer Authority. I briefly worked for a company called Ameresco before coming to the EAA. There I learned a tremendous amount about water conservation technologies which should transfer very well to my new work on the EAHCP.

EAHCP Steward: Sounds like your work experience has an abundance of similarities to what the EAHCP is about, which should be a nice head-start for you.

Storment: The overlap is very striking for me. I've helped develop small and large watershed plans in this area of the country. And in every case, there is a direct link between the river system and the local aquifers. Each system contains water quality and quantity issues to deal with. Additionally, an important component of these types of projects is teaching communities about these resources and how they can help protect them. All three of those topics are directly relevant to priorities of the EAHCP and EAA. After spending so much of my recent career on the water infrastructure side, it has been refreshing to reengage on the environmental policy, program and planning aspects that make up the EAHCP.

EAHCP Steward: Speaking of policy and science, how do you see those things coming together in the EAHCP?

Storment: Well, there are a myriad of official participants in the EAHCP, and then there are several non-voting participants who are definitely involved in this program. What amazes me most is how successful the program has become using a consensus-based approach to decision making. These are not easy issues to manage and there are very different points of views on managing resources like the Edwards Aquifer. However, I think there are two very important factors that make this type of decision making system work here. First, there has been a plethora of solid, scientific studies to inform decision makers and interested parties along the way. Additionally, the common interest of managing resources from a local, or in this case, regional aspect rather than deferring to state or federal authorities is a definite motivator for working together. From my experience, solving problems regionally are always the best ways to get positive results for a group like the Edwards Aquifer community. I am a firm believer in that approach.

EAHCP Steward: After studying the EAHCP for a short time, what are the things that stand out to you as the most important next steps in the program?

Storment: In the next few weeks, we will be receiving the final report from the National Academies of Science. They've spent a few years studying the EAHCP and so all of us will be very interested in their assessment and recommendations for improvements. There are also a number decisions to be made about Phase 1 and 2 of the EAHCP coming in the near term. I'm fortunate to have inherited a successful and well-running program, but as we all know, there is a long path before us and I'm definitely looking forward to working with everyone on this challenge.

They Get by with a Little Help from their Friends

EAHCP research team getting to know the endangered dryopid beetle

Dr. Ely Kosnicki at the San Marcos Aquatic Resource Center lab.

Dr. Ely Kosnicki, a senior invertebrate ecologist with BIO-WEST, is a serious scientist and has spent many years learning about freshwater invertebrates in various parts of the country. And, after an hour-long interview in discussing the endangered dryopid beetles found primarily in the Comal Springs system, you would be certain that you had just experienced an advanced aquatic biology class he has taught in the past. But, then you learn that he calls the two-dozen or so six-legged creatures by name…Wilma, Bonnie, Clair, Alex, Omar and so on…and you understand Kosnicki is enjoying this important ongoing study as well.

“Well, if I had been a little quicker on my feet, I probably would have come up with some clever names for the beetles, like John, Paul, George, Ringo, Yoko Ono and such,” Kosnicki deadpanned. “We keep meticulous records of each dryopid we bring from the springs into the lab, and so we concluded that names are a little more friendly than numbers.”

Studying the dryopid beetle is all part of the Edwards Aquifer Habitat Conservation Plan (EAHCP) refugia program. Researchers are learning as much as they can about this species and will hopefully be able to propagate them in the lab and watch the larvae grow into adults. The refugia program is designed to enable the EAHCP team to hold endangered species in captivity in order to reintroduce them into the wild if a natural disaster ever decimated the species and their habitat.

This beetle was first discovered in spring outlets in 1987, officially described in 1992 and declared endangered in 1997. But, up until the current study led by Kosnicki at the beginning of last year, scientists couldn’t tell the males from females and really knew very little about how they live. However, in just the past 10 months, Kosnicki’s team has learned a great deal about these invertebrates.

“These are tiny creatures about the size of a grain of rice,” Kosnicki explained. “So finding them in the wild was not easy. We knew they live in the spring systems, and that’s where we started looking. Cotton seemed to be the lure of choice when we began, but we learned that they really liked the biofilm that grows on wood and so we had success just searching various types of wood at spring openings. Our current permit limits the number of specimens we can actually take out of the wild in a year. Plus, if we find a group of beetles, we’re

only allowed to move half of them to the lab. Needless to say, capturing specimens is a time-consuming task and in the end we are only left with a handful of specimens to work with."

Kosnicki was able to determine the sexes of the dryopid beetle rather quickly by observing mating habits and then finding definitive markings on the abdomens of males and females. Sometimes, the sexes in various species will have size differences, but in this beetle's case, size was not a factor. Additionally, Kosnicki and research teammate Eric Julius had to recreate the type of living environment in the lab that the dryopid beetle was used to in the wild. They used small containers with flowing well water from the Edwards Aquifer on site, dropped in some rocks, leaves from various trees found near the springs and added some wooden dowels that the beetles liked to feed on. The dowels are wrapped with a bit of cotton in order to catch any eggs laid by the females. As beetles are brought into the lab, the team pairs a male with a female and puts them into one of the containers. A few weeks later, Kosnicki and Julius will remove the cotton, use a microscope to check for eggs and move any eggs to a rearing chamber.

"The big news in the course of the study is that six of the eggs, from a total of about 80 eggs laid so far, have now hatched into larvae," Kosnicki stated. "We will be watching those larvae very intently to learn how they react to the environment they are in, what they primarily feed on and ultimately whether they grow into adults.

"We've really made some important strides in getting to know these tiny endangered creatures. And, obviously, we're hoping to come to know much more about the larvae as they grow into adults over the next year or so.. And while this can be tedious, detailed work at times, its very exciting when we learn something new about them. We're all anticipating the day we can name an adult that has grown up in the refugia."

They should probably grab the Beatles' Sgt. Pepper soundtrack and play "With A Little Help From My Friends.," too.

Nonprofit Group Provides Protection for San Marcos River

Executive Director Dianne Wassenich spearheads organization's growth and goals

Dianne Wassenich near Spring Lake in San Marcos.

If you know Dianne Wassenich, you've experienced her relaxed style and friendly way of interacting. And if you have worked with her on a project, you know she is doggedly determined and doesn't mind taking on large, consequential tasks, especially when it comes to protecting the San Marcos River. That spirit of conviction and self-confidence hasn't gone unnoticed and she is now the executive director of the San Marcos River Foundation and an active participant in the Edwards Aquifer Habitat Conservation Plan (EAHCP) work.

"I got started in this work about 17 years ago as my husband and I joined the San Marcos River Foundation to object to some pipelines that were planned to go through this watershed and some wastewater activities that were not helping the area," Wassenich recalled. "But I really kind of took a deep dive into the Edwards Aquifer Recovery Implementation Plan (EARIP) when the Foundation was included as a stakeholder in that process. I attended as many meetings as I could, but really gained most of my knowledge at the science committee meetings. I'd stay out of the way and prepare lunch for participants. But, I listened intently to each presentation and discussion, read through all of the PowerPoints and got my hands on the studies. This is when the lightbulb went on for me that protecting the recharge zone above the San Marcos River had to be the Foundation's focus."

Wassenich credits the undeveloped land between Wimberley and the City of San Marcos for the fact that crystal clear water and steady flows still fill Spring Lake in San Marcos and the San Marcos River today. That acreage is heavily vegetated and rocky ranch land with several ravines directing rainwater to recharge features that feed the San Marcos Springs. Keeping that land as natural as possible became the focus of the Foundation.

“First we checked with major land trust organizations to see if they were doing any work in this area. They were not,” said Wassenich. “We knew that the EAHCP and EAA couldn’t lead this effort. And while the City of San Marcos had done some nice land preservation west of the land we were targeting, we soon came to realize that our small organization was going to have to step up and take on the job of buying land for conservation easements. Of course, we knew nothing about that when we started.”

To address the shortcomings in land acquisition knowledge, SMRF partnered with the Save Our Springs group in Austin which was established to help protect Barton Springs. SMRF’s first land purchase, consisting of 75 acres, came through loan funding from The Conservation Fund (TCF), a national organization focused on land preservation. TCF also lent SMRF funds to buy the second and larger purchase of 250 acres in 2016. The City of San Marcos then bought the 250 acres from SMRF in 2018 with a federally funded but little-used loan program at the Texas Water Development Board. This land has major ravines and recharge features on it.

“We have been successful over the last five years in creating a bit of land easement ring just above Spring Lake and we will continue to add to our purchases,” Wassenich explained. “The City of San Marcos has added to that ring as well. We now are working with some great individual landowners, and they know our goal is to obtain conservation easements on properties which can help those landowners in estate planning to keep the land in a natural state, to keep the river clear and flowing. Land can be sold with those conservation easements in place.”

Despite the considerable effort required to get the recharge zone protection program going, Wassenich noted that SMRF is fortunate to have numerous volunteers which has allowed them to participate in many river clean up efforts in the area. SMRF also monitors and comments on proposed projects or programs at the city, county and state level that would impact the San Marcos River environment.

“We have one of the largest volunteer Stream Team groups in the state. These are people who get training to be able to test water quality in the river. Because of our numbers, we are able to test vast stretches of the river that extend to the City of Luling and include a number of creeks and tributaries along the way.”

That large group of volunteers has also contributed thousands of hours toward the EAHCP’s water quality programs. As usual, Wassenich was not shy about her opinion toward the EAHCP.

“It is truly miraculous that so many different organizations and stakeholder groups came together to agree on a direction and process for the Habitat Conservation Plan. The ASR and VISPO leasing programs primarily aimed at agricultural interests in the west have provided a major chunk of water to protect the springs in a serious drought. The actual Aquifer Storage and Recovery plant managed by the San Antonio Water System is a key component in springflow protection, even in the worst of dry spells. The riverbank restorations in New Braunfels and San Marcos now help clean runoff water. There is really too much to describe in one sitting. ’Miraculous’ is the best word I have for all of this.”

In the end, Wassenich knows there’s much more to do in protecting the San Marcos River for future generations. But, her efforts and that of the SMRF volunteers stand as a very bright light toward the proper path of how to collaboratively make that happen.