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Date
FOR IMMEDIATE RELEASE

“Flow Split Management” Part of Edwards Aquifer Region’s Habitat Conservation Plan to Preserve Ecosystem in Landa Lake River Channels

With various developments of Landa Lake occurring over time, the flows of the Comal River were altered, and consequently, habitats protecting endangered species have faced challenges. But, new construction of a valve and piping system called “Flow Split Management” is designed to provide flows in the river as they once naturally occurred.

“As flows in the Comal River changed during the development of Landa Lake, many non-native plants took over the native plants in the river channels,” said Edwards Aquifer Habitat Conservation Plan (HCP) Program Manager Nathan Pence. “The non-native plants proved to be harmful to endangered species supported by habitats of native plants. To stem that tide, the City of New Braunfels is constructing a river flow management system to help regulate flows in the Comal River’s Old Channel, where the federally protected fountain darter and its habitat is most abundant.”

As New Braunfels grew during the early 1900s, a second and deeper Comal River channel was constructed to provide water flows for light industrial purposes. Over time, increased flows in the Old Channel of the Comal River resulted in the loss of significant amounts of the original habitat. The flow split management system, as defined in the HCP, addresses the degradation of the ecosystem in the Old Channel.

The HCP was developed by stakeholders from throughout the Edwards Aquifer Region to protect federal listed endangered species.

“There is a delicate human and environmental balance we have achieved in our HCP work. While everyone knows Texas weather is always changing, we can be ready with programs to address severe droughts when they occur,” Nathan Pence, HCP Program Manager, stated. “A healthy ecosystem is good for the environment, people and local economies. As the state’s population grows, demand for water increases for various types of uses. With appropriate management and conservation, we can balance regional water supply needs with environmental needs and preserve the Edwards Aquifer resource for many generations.”

You can read more about flow split management at:

http://www.eahcp.org/index.php/habitat_protection/comal_springs/flow_split_management.

————— **HCP** —————

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Severe Drought Conditions Drive Extreme Habitat Conservation Measures

“Salvage Stock” HCP Component Triggered by Minimal Spring Flows

Today, the HCP staff and consultants began collecting endangered species from the springs and river runs to move them to fish tanks and other man-made environments known as “refugia.” The Habitat Conservation Plan (HCP) Implementing Committee has been prepared to take these extreme measures to preserve endangered species and habitats as aquifer levels and spring flows have steadily declined throughout this extended drought.

The Habitat Conservation Plan was developed through Edwards Aquifer regional partner consensus over a six-year period and officially adopted in 2013.

“When we first developed this program for taking endangered species out of their natural habitats and placing them in refugia, we always knew that this would be the worst case scenario type of effort to preserve them,” said Tom Taggart, HCP Implementing Committee chairman. “But, with spring flows reaching near minimum flows of 50 cubic feet per second (CFS), that’s exactly what our planning calls for, and so we’ve begun collecting the various species and moving them to fish tanks to keep them alive. They will be returned to their habitats as water levels in the Edwards Aquifer rise to normal levels.”

There are actually a number of collected species known as “standing stock” that are kept in laboratories at all times. They are maintained not only for this type of historically low Edwards Aquifer levels, but also in the case of other catastrophic events like a major contaminant spill in one of the rivers.

The three refugia are located at the San Marcos Aquatic Resource Center, Uvalde National Fish Hatchery and Inks Lake Fish Hatchery. The refugia program will cost \$25 million over the 15-year period of the federal permit.

“There is a delicate human and environmental balance we have achieved in our HCP work. While everyone knows Texas weather is unpredictable, we can proactively prepare programs to address severe droughts when they occur, and this is as bad as the region has ever seen,” HCP Program Manager Pence stated. “A healthy ecosystem is good for the environment, people and local economies. As the state’s population grows, demand for water increases for various types of uses. With appropriate management and conservation though, we can balance regional water supply needs with environmental needs and preserve the Edwards Aquifer resource for many generations.”

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Aquifer Storage and Recovery Program Key Part of Protecting Edwards Aquifer During Drought of Record

San Antonio Water System Facility Storing Edwards Water for Use During Extreme Drought

“In developing the Habitat Conservation Plan, we realized what a tremendous resource the SAWS Aquifer Storage and Recovery (ASR) facility is for the Edwards Region,” said Nathan Pence, HCP Program Manager. “We worked with SAWS to put together a program where the Edwards Aquifer Authority could acquire water and store it at their facility for withdrawal during drought of record conditions. It’s sort of like having a savings account to store water when you have it, then taking it out when you really need it.”

Pumping from the ASR facility and not from SAWS’ Edwards Aquifer wells helps maintain spring flows in the Comal and San Marcos Springs, helping protect endangered species and their habitat. This also helps stabilize overall water levels in the Edwards Aquifer, which is a big benefit to all users.

The ASR facility is a groundwater storage plant located in southern Bexar County, and operated by the San Antonio Water System (SAWS). Its primary function is to store Edwards Aquifer water in the Carrizo Aquifer when available. During dry months water is pumped back into the existing distribution system in San Antonio to help meet summer water demand. The ability to store large amounts of water in the Carrizo Aquifer makes the ASR facility a key water management tool for the Edwards Aquifer region.

This is the fourth year in a row of drought conditions in South Texas causing Edwards Aquifer levels in Bexar, Medina and Uvalde Counties, plus spring flows in New Braunfels and San Marcos to drop towards historic lows. However, the ASR program component of the Edwards Aquifer Habitat Conservation Plan (HCP) will play a key role in preserving spring flows and water supply around the region through this extremely dry period.

“The ASR water management tool is just one of many HCP programs so the Edwards Aquifer, spring flows, endangered species and their habitats will have a fighting chance to weather extreme droughts,” Pence stated. “The bottom line for all of our programs is that we strike the right balance in protecting human and environmental needs, while preserving the Edwards Aquifer as a resource.”

While regional water managers are trying to maximize the use of the Edwards Aquifer through programs like ASR, residents and businesses are encouraged to do their part by using water wisely as well. For example, make sure all water leaks are repaired, and reduce indoor water use by using low-flow fixtures and appliances. Outdoors, only water your landscape when it is needed, and make sure to follow your local area’s drought restrictions watering guidelines.

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Voluntary Irrigation Suspension Program Option Leasing (VISPO) Helps Protect Edwards Levels in Critical Periods

Extended drought conditions in South Texas always produce historically low Edwards Aquifer levels in Bexar, Medina and Uvalde Counties, and minimal-to-no spring flows in New Braunfels and San Marcos. However, the Voluntary Irrigation Suspension Program Option (VISPO) component of the Edwards Aquifer Habitat Conservation Plan (HCP) can play a key role in preserving spring flows and water supplies around the region despite these extreme dry periods.

VISPO is a voluntary program open to eligible Edwards Aquifer irrigation water rights holders in Atascosa, Bexar, Comal, Hays, Medina and Uvalde counties. VISPO participants agree to suspend pumping water for an entire year in exchange for financial compensation when the Edwards Aquifer level is a 635 feet on October 1. Once VISPO triggers at 635 feet, irrigators must suspend pumping beginning January 1 of the following year. They receive a standby payment for each acre-foot of water enrolled even if VISPO does not trigger, and a higher per acre-foot payment if it does.

“In developing the Habitat Conservation Plan we realized providing incentives for irrigators to suspend pumping could be a very helpful method in slowing the decline of the Edwards Aquifer,” said Tom Taggart, HCP Implementing Committee chairman. “This ca.”

“Through the HCP programs, the Edwards Aquifer, spring flows, endangered species and their habitats stand to fair much better in drought conditions,” HCP Program Manager Nathan Pence stated. “Our efforts are designed to strike the right balance in protecting spring flows, ensuring all water users have the water they need each day and protecting the Edwards Aquifer as a resource.”

In addition to new HCP programs like VISPO being applied to Edwards Aquifer protection, all water entities agree that residents and businesses should continue their water conservation efforts as well. Make sure all water leaks are repaired, and reduce indoor water use by using high efficiency fixtures and appliances. Outdoors, only water your landscape when it is needed, and make sure to follow your local area’s Critical Period watering guidelines.

More VISPO details, such as lease lengths and payment options can be found at:
www.eahcp.org/index.php/flow_protection/vispo.

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Social Media and Regional Messaging



Social Media Posts

General HCP Information

- With South Texas being in year four of a drought, water flowing from the Comal Springs in New Braunfels is starting to show signs of low-to-no flows in certain areas. The Edwards Aquifer Region's Habitat Conservation Plan includes several water-saving and endangered species/habitat preserving programs to ease the effects of the drought on the Comal and San Marcos Springs. You can read more about these programs at: www.eahcp.org.
- While the HCP is the scientific method for protecting the Edwards Aquifer, what can you do to help preserve the region's primary source of water? You can start by repairing all water leaks at your home or business. A steadily leaking toilet can waste up to 500 gallons per day. Water your landscapes only as much as needed, hand water whenever possible. Indoors, take short showers, wash clothes and dishes only when you have a full load and never leave the water running if it is not being used.

Biological Monitoring

- Current drought conditions caused the Habitat Conservation Plan program to step up its "bio-monitoring" work. Under normal conditions, evaluation of the river water quality and the endangered species habitats happens twice a year. When the Comal and San Marcos Springs start flowing slowly due to lack of rainfall, the U.S. Fish and Wildlife Service requires monitoring to occur every other week. See www.eahcp.org/index.php/supporting/biological_monitoring for more information.
- Typical biological monitoring includes detailed evaluations of water quality and overall health of the various protected species and their habitats living in the Comal and San Marcos Rivers.
- Biological monitoring is just one effort of the Habitat Conservation Plan designed to strike the right balance in environmental and human needs, while preserving the Edwards Aquifer as a resource. A healthy ecosystem is good for the environment, people and local economies. Do your part by keeping our rivers clean. Remember, always put your trash in its proper place.
- Current biological monitoring program components include:
 - Aquatic vegetation mapping for select river reaches;
 - Fountain darter sampling (drop nets, dip nets, visual);
 - San Marcos salamander sampling (SCUBA and snorkel);
 - Texas wild-rice physical observations and annual mapping;
 - Comal Springs riffle beetle monitoring;
 - Comal invertebrate sampling (drift net sampling over spring orifices);

- Comal Springs salamander sampling;
 - Parasite evaluations concerning the fountain darter
 - Ramshorn and other exotic snail monitoring
- While the experts are doing the scientific work, you can help preserve our natural resources by making sure you leave no trash behind after enjoying our Texas parks and rivers. Have fun!

Refugia

- There are endangered species living in parts of the Comal and San Marcos Rivers. Those rivers are fed by the Edwards Aquifer. Because spring flows have dwindled to near all-time lows, experts working through the Habitat Conservation Plan are moving those endangered species to man-made fish hatcheries known as “refugia.” The species will be returned to the rivers when rains replenish the aquifer and springs return to normal.
- There are actually a number of collected species known as “standing stock” that are kept in laboratories all of the time. They are maintained not only for this type of historically low Edwards Aquifer levels, but also in the case of other catastrophic events like a major contaminant spill in one of the rivers.
- Moving endangered species to man-made refugia might seem like a lot of effort, however, a healthy ecosystem is good for animals, people and our economy. You can help keep the environment clean by never leaving trash outdoors.
- Learn more about how the Habitat Conservation Plan protects endangered species by going to: www.eahcp.org/index.php/supporting/nfhtc_refugia

State Scientific Areas

- When Edwards Aquifer levels get low, so do the flows at the Comal Springs in New Braunfels and the San Marcos Springs in San Marcos that feed the rivers. At certain river flows, the State puts out buoys and ropes to protect certain environmentally sensitive areas. Tubers are asked to float around these areas. That’s a simple way you can enjoy the river but help protect the habitats where endangered species live.
- When you see certain areas of the San Marcos River roped off, that just means that flows in the river are low, and environmental scientists are trying to preserve habitats where endangered species live. The river will never be completely blocked, so just tube around these places called “State Scientific Areas” and you’ll be helping too.
- Download this great info sheet on State Scientific Areas from the Texas Parks and Wildlife.
http://www.tpwd.state.tx.us/publications/pwdpubs/media/cs_lf_p4000_1876.pdf

Flow Split Management

- Building at Landa Lake in New Braunfels over the years has included the construction of a man-made river channel. The original river channel is known as the “Old Channel.” During drought conditions, flows in the Old Channel can get very low which create problems for endangered species living there. To address that issue, the City of New Braunfels is constructing a series of pipes and pumps to move water into the Old Channel during dry periods. This is known a “flow split management” and serves as a key part of the Habitat Conservation Plan.

- Read all about flow split management at:
www.eahcp.org/index.php/habitat_protection/comal_springs/flow_split_management

Provision M

- Lower flows in the Comal Springs and San Marcos Springs caused by the ongoing drought have stopped work projects in New Braunfels and San Marcos associated with the Habitat Conservation Plan (HCP). Program managers just want to be sure that any kind of work activity in the rivers is not harming the endangered species and their habitats that live there. Once everyone agrees that ongoing work is not hurting species habitats, projects can resume.
- Typical Edwards Aquifer Habitat Conservation Plan work includes environmental scientists removing sediment in the rivers, which can cover up animal habitats, and the replacing of non-native plants with native plants, which help protect endangered species. You can read all about the Habitat Conservation Plan at: www.eahcp.org.

ASR Program

- During these types of drought conditions, pumping lots of water out of the Edwards Aquifer can reduce spring flows in New Braunfels and San Marcos. But, what if you could store Edwards Aquifer water during wet periods for use during dry times? Well, San Antonio Water System has created just such a system called Aquifer Storage and Recovery, or ASR. The Habitat Conservation Plan makes use of that system by leasing water from Edwards Aquifer water right holders and storing that water in ASR. So, the next time we hit a drought of record, and it will happen, the ASR Leasing Program will be up and running to help keep water pumping down.
- Everyone around the region benefits from ASR Leasing. Edwards Aquifer permit holders can make some additional money, San Antonio Water System doesn't have to pump its wells as much, and that in turn relieves some pressure on Comal and San Marcos spring flows. Do you have water rights to lease? Learn more at: www.ASRLeasingProgram.com.
- While the ASR Leasing Program is storing water for dry times, how are you helping conserve water? Have you checked for water leaks and fixed them? How switching out all of the water fixtures in your home, like showerheads and toilets, to high efficiency devices. And outdoors, water your landscape only when it's needed. If it rains, make sure your automatic sprinkler system doesn't come on. That's an obvious waste of water.

VISPO

- What's a VISPO? That's an acronym for Voluntary Irrigation Suspension Program Option, and a key part of the Edwards Aquifer Habitat Conservation Plan. Edwards water rights holders can allow the Edwards Aquifer Authority (EAA) to acquire their water, and in turn, the EAA prevents that water from being pumped from the Edwards Aquifer during drought periods. The less water we take out of the Edwards Aquifer during these types of drought conditions, the better chance we have at preserving major spring flows in New Braunfels and San Marcos. Overall, a healthy ecosystem is good for animals, humans and the economy. Do you have Edwards Aquifer water rights? If so, you can make some money by allowing EAA to acquire some of that water. Learn more at: www.eahcp.org/index.php/flow_protection/vispo.
- Extended drought conditions in South Texas always produce historically low Edwards Aquifer levels in Bexar, Medina and Uvalde Counties, and minimal-to-no spring flows in

New Braunfels and San Marcos. However, the Voluntary Irrigation Suspension Program Option (VISPO) component of the Edwards Aquifer Habitat Conservation Plan plays a key role in preserving the Edwards Aquifer water despite these extreme dry periods. Under VISPO, water that is acquired by the Edwards Aquifer Authority cannot be pumped for an entire year. Not pumping that water from wells helps keep water flowing at the springs, and gives the region more opportunities for rain to replenish the Edwards.



HCP Regional Statements

- The Edwards Aquifer is a shared resource. Farming communities in Uvalde and Medina Counties use the aquifer water to raise crops. San Antonio in Bexar County is the largest municipal user of the aquifer. Comal and Hayes Counties are home to the Comal and San Marcos Springs. Then, there are water users downstream who rely on springflow.
- The Edwards Aquifer Authority was created to balance all Edwards water user interests through fair water management programs and regulations. The creation of the EAA prevented federal intervention as the region came together and explained how we would manage the Edwards resource on a shared basis.
- The drought of record occurred in the 1950s when the Edwards Aquifer levels reached all-time lows and the springs in Comal County stopped flowing for about six months. Fortunately, we've never witnessed that same problem at the San Marcos Springs. However, the Edwards Region is much more populated than it was in the 1950s, and we know that another drought of record will happen.
- We do have a responsibility to everyone living and working here to be prepared for short and extended dry periods.
- Water agencies in the Edwards Aquifer region have worked diligently and spent hundreds of millions of dollars to provide safe and dependable water supplies for their customers. But, when these types of dry periods occur in our area, every resident and business owner should do a little extra to conserve water. (Add water conservation tips.)
- There is never a good reason to waste water.
- There is a delicate human and environmental balance we've achieved in our HCP work. While everyone knows no one can control the weather, we can be ready with programs to address severe droughts when they occur. We must ensure that families and businesses have water for everyday life, but we also need to do our best to protect endangered species also relying on Edwards Aquifer water and habitats per federal law.
- The EAA has a critical period (drought) management system which requires certain percentage reductions in water use from the Edwards Aquifer when each drought stage triggers. These regulations apply to the entire region. But each water supplier determines how it will meet the water reduction requirements of each stage. That provision ensures water suppliers retain management of their systems, and encourages them to diversify their water sources over time, reducing dependence on the Edwards Aquifer to meet future water needs. (Add facts from water suppliers.)