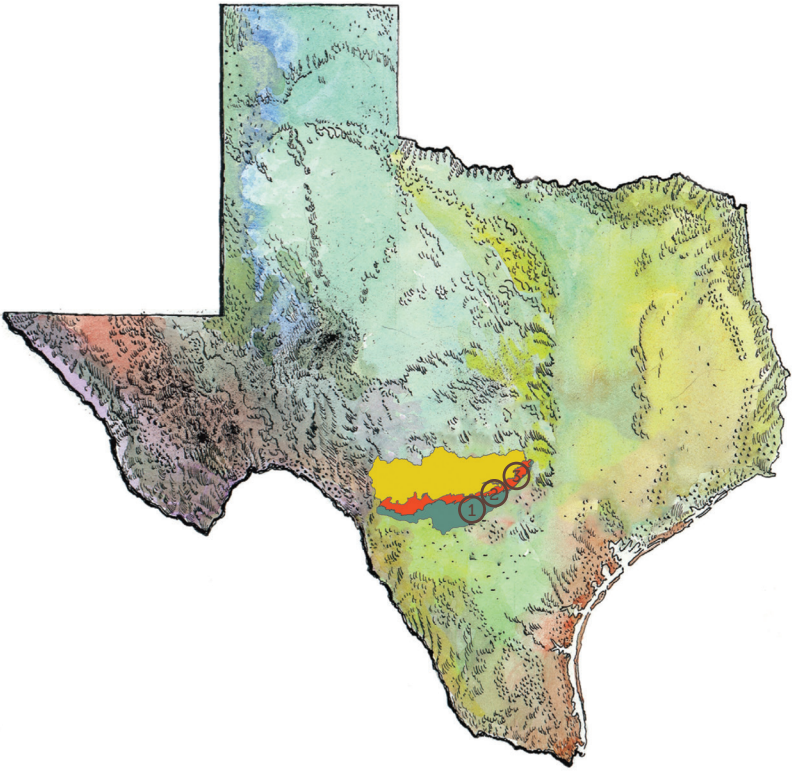

HABITAT
CONSERVATION
PLAN
EDWARDS
AQUIFER

The Edwards Aquifer Habitat Conservation Plan (EAHCP) protects the federally listed species in the Comal and San Marcos Springs. The plan was developed through a consensus-based process by a diverse body of stakeholders. This group included industries, agricultural users, municipalities, water purveyors, river authorities, environmental organizations, four state agencies, and groups with down-stream interests.

Texas

Edwards Aquifer Region



San Antonio Segment of the Balcones Fault Zone

- Drainage area
- Recharge zone
- Artesian zone

3 San Marcos Springs
2 Comal Springs
1 San Antonio

Fountain Darter
[Endangered]

The Edwards Aquifer region found a way to come together in order to meet the needs of a hugely diverse set of interests; the EAHCP provides certainty to the region by affirming local control over use of the Edwards Aquifer.

EAHCP Timeline

1956

A seven-year drought reached its climax in the Edwards region when Comal Springs stopped flowing for 144 days.

1991

The Sierra Club filed a lawsuit against the United States Fish and Wildlife Service (USFWS) claiming that the agency had failed to adequately protect the endangered species dependent upon the Edwards Aquifer.

1993

Judge Lucius Bunton ruled in favor of the Sierra Club. He directed the Texas Legislature to find an immediate Texas-based solution to protect the Edwards Aquifer species or risk the "blunt axe" of federal intervention.

1993

The Texas Legislature enacted Senate Bill 1477, which created the Edwards Aquifer Authority (EAA) and made it responsible for addressing the pumping of aquifer water while ensuring minimum continuous springs-flow in the San Marcos and Comal systems.

2007

Following unsuccessful attempts by the EAA to solve the multifaceted problem, the Texas Legislature—through Senate Bill 3—created the Edwards Aquifer Recovery Implementation Program. This group was tasked to create a plan for the aquifer, through a consensus based stakeholder process, by September 1, 2012.

2011

The Edwards Aquifer Habitat Conservation Plan (EAHCP) and supporting documents were approved by the EAA and San Antonio Water System Board of Directors, the San Marcos and New Braunfels city councils, and the Texas State University administration.

2012

The EAHCP and incidental take permit application—document that provides legal protection for inadvertent "take" of the species—was formally submited to USFWS.

In early 2013, the Edwards Aquifer Habitat Conservation Plan (EAHCP) was officially approved and an implementation process began with the leadership of representatives from the Edwards Aquifer Authority, City of San Marcos, City of New Braunfels, Texas State University, San Antonio Water Systems and the Guadalupe-Blanco River Authority.

Covered Species

Comal Springs Dryopid Beetle
Stygoparnus comalensis [endangered]

Comal Springs Riffle Beetle
Heterelmis comalensis [endangered]

Comal Springs Salamander
Eurycea sp. [petitioned]

Edwards Aquifer Diving Beetle
Haideoporus texanus [petitioned]

Fountain Darter
Etheostoma fonticola [endangered]

Peck's Cave Amphipod
Stygobromus pecki [endangered]

San Marcos Gambusia
Gambusia georgei [endangered]

San Marcos Salamander
Eurycea nana [threatened]

Texas Blind Salamander
Eurycea rathbuni [endangered]

Texas Troglobitic Water Slater
Lirceolus smithii [petitioned]

Texas Wild Rice
Zizania texana [endangered]

Texas Blind Salamander
[Endangered]

Some of the major EAHCP initiatives include:

SAN MARCOS SPRINGS SYSTEM

The San Marcos Springs ecosystem has the most reliable springflow in Texas. This allows water temperatures to remain constant all year round and provides ideal habitat for rare plants and animals. With the help of local biologists, a variety of restoration activities have provided future security for the whole ecosystem and can allow the protection of the EAHCP covered species from potential harm caused by a growing urban population.

Texas Wild Rice Enhancement is a valuable EAHCP activity. Here biologists plant endangered Wild Rice stands throughout the upper parts of the San Marcos River and remove excess sediment and non-native plants to allow continued growth.

Riparian Restoration reestablishes native plants along the banks of the San Marcos River. This effort provides habitat protection from recreation and heavy rain events that often cause damage to EAHCP covered species habitat.

COMAL SPRINGS SYSTEM

The Comal Springs ecosystem is the largest spring in Texas. Here springflow variability requires a variety of well-planned habitat restoration activities to provide suitable habitat for the EAHCP covered species. This effort can ensure protection of the local ecosystem from the growing urban popuation and heavy recreational activities found in and around the springs.

Old Channel Restoration helps provide ideal habitat for the species found in the Comal Springs ecosystem. The removal of non-native plants and sediment accumulation provides biologists the opportunity to restore native habitat for EAHCP covered species.

Flow Split Management restores aged culverts near Landa Lake to provide more reliable flows to the Old Channel. This effort ensures the health of all newly restored habitat even in periods of decreasing springflow.

Some of the major EAHCP initiatives include:

Voluntary Irrigation Suspension Program Option

VISPO is a voluntary program open to irrigators with groundwater withdrawal rights from the Edwards Aquifer. It encourages farmers to use less water in times of severe regional drought by financially compensating them when they suspend their groundwater pumping. This conservation program helps protect spring flows by keeping much needed water in the aquifer.

Aquifer Storage and Recovery

This measure is designed to minimize the impacts of extended drought to the covered species through a three-step leasing program. The everyday operations and infrastructure required for ASR activities are managed by the San Antonio Water System. Water allocated through these water leases is placed in separate aquifer storage to be used in times of extended drought.

Some of the major EAHCP initiatives include:

Regional Water Conservation Program

The goal of the RWCP is to conserve 20,000 acre-feet of permitted Edwards Aquifer withdrawals through incentives to municipalities that encourage water conservation. These programs include low-flow toilet distribution, leak detection, and other community specific efforts.

Stage V Critical Period Management

Stage V Critical Period is now included in the emergency drought management plan. Once triggered, pumping is reduced by a 44% for the duration of this stage.

Some of the major EAHCP initiatives include:

Applied Research

As an integral way in providing reliable knowledge about the springs systems and the species protected, the Applied Research Program will conduct a variety of studies each year to evaluate the ecological dynamics of our springs systems during low-flow conditions.

Biological Monitoring

Since 2000, a comprehensive Biological Monitoring Plan has gathered baseline and critical period data to better understand the ecological conditions of both the Comal and San Marcos systems. Additional monitoring during low-flow periods will provide a better understanding of critical changes in new and existing threats as well as habitat tolerances.

Water Quality Monitoring

Consistent water quality data will be gathered for both systems to better understand the dynamics of the systems and potential threats existing for covered species and their habitat.

San Marcos Salamander
[Threatened]

On January 16, 2014, the Department of Interior recognized the Edwards Aquifer Recovery Implementation Program, the program that preceded the EAHCP, with a Partners in Conservation award at a ceremony in Washington, D.C.

U.S. DEPARTMENT OF THE INTERIOR

PARTNERS IN CONSERVATION AWARD

In recognition of outstanding conservation achievements attained thorough collaboration and partnership with others

Edwards Aquifer Recovery Implementation Program
Balancing the Needs of Wildlife, Water, & People

is hereby awarded this certificate in the year 2013

U.S. DEPARTMENT OF THE INTERIOR · MARCH 3, 1849 ·

Sally Jewell

Secretary of the Interior

Edwards Aquifer Habitat Conservation Plan Partners

The Edwards Aquifer is a unique groundwater resource and primary source of water for more than 2 million people in Uvalde, Medina, Bexar, Comal and Hays Counties, supporting domestic, industrial and agricultural water needs; it is also the source of the only two major springs remaining in Texas, the San Marcos and the Comal, which feed the San Marcos and Comal Rivers—tributaries to the Guadalupe River.

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