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Study throws water on aquifer limits

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Preliminary research into endangered species suggests Edwards Aquifer levels could drop much lower than previously thought before drastic cutbacks in water use are needed to protect their survival.

The federally commissioned, still unpublished study, which officials were reluctant to have made public, arrived at the same conclusion through two different approaches.

It could give regional officials more options than simply cutting back use when

the flow at Comal Springs declines and threatens to kill the most sensitive of eight protected species during periodic but regular droughts.

"If it holds up, it would be very encouraging that we have some additional management strategies," said Luana Buckner, one of 17 directors of the Edwards Aquifer Authority, which is charged with managing the use of water from the aquifer.

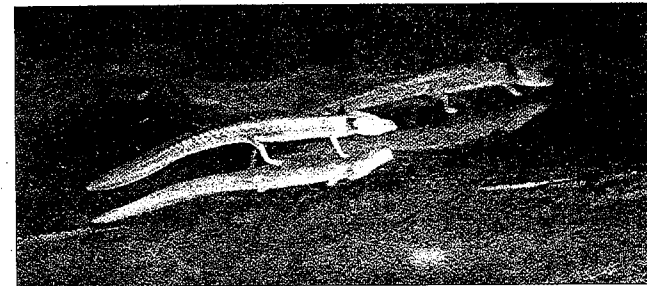
The study, conducted by researchers at Utah State University and commissioned by the U.S. Fish and Wildlife Service, predicts that even flows as low as 30 cubic feet per second (cfs) would maintain 60

percent of the habitat necessary for a tiny fish called the fountain darter to stay healthy and reproduce. At 100 cfs, 90.5 percent of habitat would remain suitable.

That runs counter to contentions made by federal officials in a court-ordered 1996 recovery plan for the fountain darter. That plan said the fish would be threatened with extinction at flows below 150 cfs. The new study says 99.2 percent of the darters' habitat remains suitable at that flow rate.

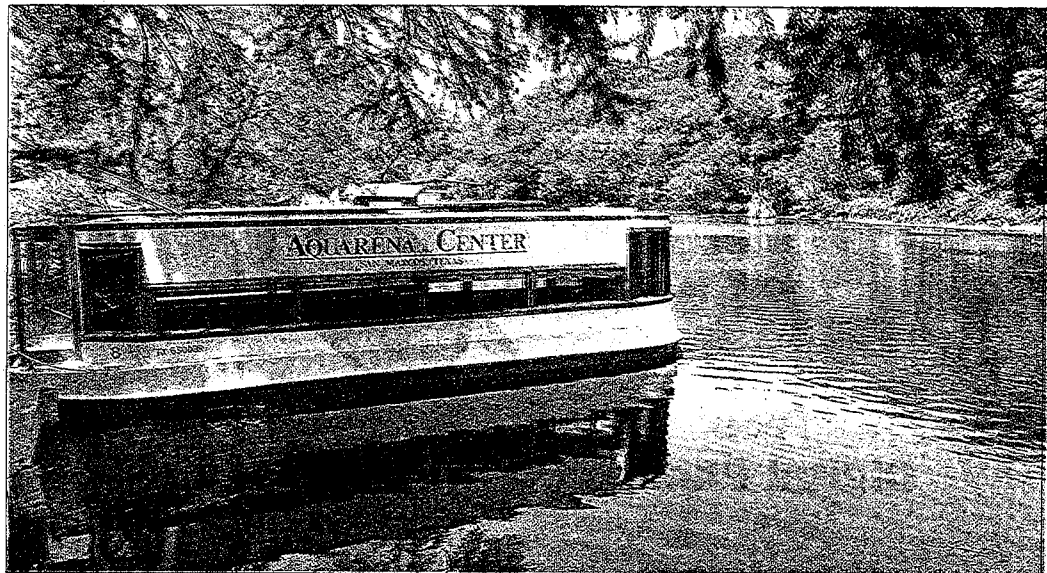
Long-term average flow rates for Comal Springs, which is in New Braunfels,

■ See STUDY/10A



TOM REEL/STAFF

An aquarium at Aquarena Center in San Marcos contains blind salamanders. A study is looking at acceptable flow rates to protect the endangered species.



TOM REEL/STAFF

Despite reduced flow rates, the lake at Aquarena Center in San Marcos remains full Tuesday behind the dam.

Study targets species, aquifer levels

■ Continued from 1A

range from 300 cfs in the winter to about 250 cfs in August. The springs Monday were flowing at an average of 246 cfs.

The fountain darter is one of eight species living at Comal and San Marcos springs that are listed under the U.S. Endangered Species Act. Also included is the Texas blind salamander and Texas wild rice.

The draft study was unveiled Tuesday at a meeting of a citizens

advisory committee working with the Edwards authority to devise a habitat conservation plan for the aquifer.

The plan, which still is a year or two from completion, would allow the authority to seek a permit exempting aquifer pumpers from administrative penalties or criminal prosecution for harming the species as springflows drop or cease as a result of their pumping.

Patrick Connor, a biologist with the federal wildlife service's ecological service office in Austin,

stressed that the study still is in draft form and is subject to change. He said the service is not prepared to say what the new study may mean to the region's planning for drought response.

"There are a lot of unanswered questions," Connor said. "A lot of the questions have to do with what really low flows will mean to the aquatic plants that are out there, like in Landa Lake."

The study, which included measurements and samples taken from spring 1993 through summer 1996,

looked at critical water temperatures the darter needs for survival and reproduction. It did not predict the potential adverse effects during low flows from other threats such as predators, competition for food and parasites.

Still to come this summer from the federal wildlife service and the Texas Parks and Recreation Department are separate studies on flow requirements for San Marcos Springs.

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