ATTACHMENT 5

EDWARDS AQUIFER RECOVERY IMPLEMENTATION PROGRAM

For over two decades, the Edwards Aquifer region (*see* map, Tab 1) has been deeply divided over how to balance the needs of species listed under the federal Endangered Species Act ("ESA") that reside in the Comal and San Marcos spring systems with the water needs of the people supplied by the Aquifer.

In 2006, the United States Fish & Wildlife Service ("FWS") brought together stakeholders from throughout the region to participate in a "recovery implementation program" ("RIP") to develop a plan to contribute to the recovery of the federally-listed species dependent upon the Edwards Aquifer while accommodating the needs of the region for water.

In May 2007, the Texas Legislature (Senate Bill 3) directed the Edwards Aquifer Authority ("EAA") and certain other state agencies to participate in the Edwards Aquifer Recovery Implementation Program ("EARIP") and to prepare a FWS-approved plan for managing the Aquifer to preserve the listed species at Comal and San Marcos Springs by September 2012. Furthermore, the Legislature directed that the plan must include recommendations regarding withdrawal adjustments during critical periods that ensure protection of the listed species associated with the aquifer, including during the drought of record.

Senate Bill 3 also set out seven specific interim tasks and deadlines that the EARIP must accomplish prior to the completion of the plan. The EARIP has successfully accomplished all of these tasks within the time prescribed by the Legislature.

Moreover, in just over three years, the EARIP also has succeeded in identifying a plan for protecting the federally-listed species while recognizing the need of the region for water.[1] Given the contentious history of the dispute over the use of the Aquifer, this achievement is extraordinary. We are now completing the scientific evaluation of the plan and trying to find a way to pay for its implementation.

By the time the plan is submitted to FWS, the EARIP stakeholders will have contributed over $1.5 million of the $4.1 million needed to develop the science and prepare the plan. The State of Texas has contributed over $1.6 million towards the development of the HCP, and the EARIP has obtained a Section 6 matching grant from the FWS.

The cost of implementing the plan, which will be in the form of a Habitat Conservation Plan ("HCP"), will be substantial. During the first eight years alone, those costs are estimated to include over $10.2 million dollars in initial costs and an annual cost of over $31 million. The anticipated actions in the plan and their estimated cost are detailed behind Tab 2.

The EARIP will seek contributions from federal and private sources to assist in paying for the implementation of certain elements of the plan. The reality though is that the Edwards Aquifer "pumpers" and others who benefit from the Aquifer will also need to bear a significant portion of

[1] Tab 3 contains a detailed description of the Edwards Aquifer, some of the history leading up to the creation of the EARIP, and a description of the EARIP's plan for protecting the federally listed species.

those costs. The EARIP recognizes that, while some equitable sharing of those costs would be ideal, significant obstacles remain to reaching agreement on what would be an equitable distribution. This obstacle is exacerbated by the inability of many to spread those costs, the effect on irrigated agriculture, and the fact that similar costs loom in the future as FWS is considering listing additional species and the e-flow processes are drawing to a conclusion. While the disagreements over how to solve these problems are significant, we are all in agreement that a regional solution is preferable to one imposed by a Federal Court.

Accordingly, the EARIP is considering asking the Legislature to set up a regional authority to receive and distribute a sales tax set by the State. The purpose of the tax would be to fund water-related projects needed to satisfy the requirements of the federal ESA, including but not limited to the implementation of the EARIP HCP. Before asking the Legislature to set up the authority, the EARIP is seeking advice from the members of the legislature whose districts may be affected by the sales tax.

The authority the EARIP is considering would be a multi-county authority, but it would be distinct from any existing water-related political authority or district. The counties that would be included in the authority are yet to be determined, but they clearly would include the counties in the jurisdiction of the EAA and certain additional counties.

We would ask that the authority be given the ability to receive sales tax revenues set by the State for both the implementation of the EARIP's HCP as well as other water-related projects that may be identified in the future. Because the EARIP's HCP will be the first project to be initiated, we would want to have the State authorize a one-eighth percent sales tax for the EARIP HCP after a vote on the tax by the region within the authority's boundaries, with subsequent authorizations for later developed projects needed to satisfy the requirements of the federal ESA up to a total of one-fourth percent. The new sales tax would not affect the sales tax capacity or levels of local/municipal governments.

In summary:

- The EARIP, a very diverse stakeholder group, working through a consensus-based, transparent process, has identified a plan for protecting the federally-listed species.
- The stakeholders themselves have shouldered a significant part of the cost of coming up with the plan.
- The cost of implementing the plan is substantial.
- The EARIP is seeking contributions from the federal government to assist in paying for the implementation of the plan.
- The EARIP is considering asking the Legislature to set up a regional authority to receive and distribute a sales tax set by the State. The purpose of the tax would be to fund water-related projects needed to satisfy the requirements of the federal ESA, including but not limited to the implementation of the EARIP HCP.

Tab 1:

TAB 2:

TABLE 1: ESTIMATED COST TO IMPLEMENT THE HABITAT CONSERVATION PLAN			
	Activity	Estimated Annual Cost	Initial Cost
Phase II Long-term Action	Achieve Biological Goals Determined through Initial Adaptive Management Process	?	?
Flow Protection Package	Emergency Stage V Critical Period Reductions Based on a 320,000 Acre-Foot Floor	NA	NA
	SAWS ASR Trade Off	$14,336,000	$0
	Conservation Program	$1,973,000	$0
	Voluntary Irrigation Suspension Program	$10,216,000	$0
Minimization and Mitigation Measures	Measures to Reduce the Impacts of Drought and Enhance the Viability of the Listed Species at San Marcos Springs	$541,000	$5,181,000
	Measures to Reduce the Impacts of Drought and Enhance the Viability of the Listed Species at Comal Springs	$490,000	$2,035,000
	Environmental Restoration and Protection Areas at Comal Springs	$250,000	$2,500,000
	Gill Parasite Control	$25,000	$50,000
	Wild Rice Restoration and Maintenance at San Marcos Springs	$25,000	$525,000
	FWS Refugia	$1,585,000	$0
	Bio-Monitoring	$500,000	$0
	LID/Water Quality	$400,000	$0
Administrative Costs	Project Management Costs	$750,000	$0
	TOTAL	$31,091,000	$10,291,000

TAB 3:

The Edwards Aquifer

The Edwards Aquifer is a unique karst aquifer flowing 180 miles through highly porous limestone. It is the primary source of drinking water for more than 2 million people in south central Texas and serves the domestic, agricultural, industrial and recreational needs of the area. It also is the source of the two largest springs remaining in Texas: Comal and San Marcos. These springs, which are vital to eight endangered species, feed tributaries to the Guadalupe River that in turn provides fresh water inflows to bays and estuaries on the Gulf Coast.

The eight species that depend directly on water in, or discharged from, the Edwards Aquifer system are federally-listed as threatened or endangered. They are the fountain darter, San Marcos salamander, San Marcos gambusia, Texas blind salamander, Peck's cave amphipod, Comal Springs dryopid beetle, Comal Springs riffle beetle and Texas wild rice. The San Marcos gambusia has not been seen since 1982 and may be extinct.

The primary threat to these species is the intermittent loss of habitat from reduced spring flows that is the combined result of naturally fluctuating rainfall patterns, regional intermittent pumping and temporal drawdown of the aquifer.

Other threats include invasive non-native species, recreational activities, predation and direct or indirect habitat destruction or modification by humans and other factors that decrease water quality.

Background Regarding the Creation of the EARIP

In response to a court mandate (*Sierra Club v. Babbitt*) to develop a regulatory system to limit withdrawals from the aquifer to protect the species, the legislature in May, 1993 passed Senate Bill 1477 creating the Edwards Aquifer Authority ("EAA"). The EAA was authorized, among other things, to issue permits and regulate groundwater withdrawals.

Senate Bill 1477 directed the EAA to cap the permits that could be issued at 450,000 acre-feet annually but required the EAA to limit withdrawals to 400,000 acre-feet by December 31, 2007 by buying and retiring issued permits. The cost of permit retirements to get from 450,000 to 400,000 acre-feet was to be borne equally by aquifer users and downstream water rights holders.

The EAA was further directed to adopt a Critical Period Management Plan to reduce pumping during droughts and by December 31, 2012, to enforce measures to ensure "minimum continuous spring flows" to protect the listed species to the extent required by federal law.

While S.B. 1477 set specific pumping caps, it also required the EAA to issue permits with minimum pumping rights based on historic use and guaranteed specific withdrawal rights for qualifying use. After the applications were submitted, the EAA determined that the

minimum permitted rights based on criteria established by the legislature totaled at least 549,000 acre-feet, well above the 450,000 acre-foot pumping cap.

In late 2006, the FWS brought together stakeholders from throughout the region to participate in a "recovery implementation program" to develop a plan to contribute to the recovery of the federally-listed species dependent upon the Edwards Aquifer. Recovery implementation programs are voluntary, multi-stakeholder initiatives developed by the FWS that seek to balance water use and development with the recovery of federally-listed species. To reach this balance, the stakeholders develop a comprehensive document that outlines the program goals, activities, timelines, measurements of success, and role of the participants, then execute an agreement to implement the activities outlined in the program document.

In May 2007, the Texas Legislature (Senate Bill 3) directed the EAA and certain other state agencies to participate in the EARIP and to prepare a FWS-approved plan for managing the aquifer to preserve the listed species at Comal and San Marcos Springs by 2012. Also, the legislature directed that the plan must include recommendations regarding withdrawal adjustments during critical periods that ensure protection of the listed species associated with the aquifer, including during the drought of record.

Senate Bill 3 directs the EAA to "cooperatively develop a recovery implementation program" through a facilitated, consensus-based process that involves input from the FWS, other appropriate federal agencies, specified state agencies, local water resource authorities, water purveyors, environmental groups, municipalities, public utilities and other interested individuals and groups. Senate Bill 3 also set out specific tasks and deadlines that the EARIP must accomplish:

- Create a Steering Committee by September 30, 2007
- Hire a Program Manager by October 31, 2007
- Enter into a Memorandum of Agreement by December 31, 2007
- Appoint an expert Science Subcommittee by December 31, 2007
- The Science Subcommittee must submit to the Steering Committee and stakeholders initial recommendations on issues identified in S.B. 3 by December 31, 2008
- Establish a Recharge Facility Feasibility Subcommittee (no deadline)
- Enter into an implementing agreement to develop a program document by December 31, 2009
- Prepare a program document by September 1, 2012

The first seven mandates were met within the required timeframe and accomplished in the collaborative spirit the legislature expected. The EARIP has now come up with a plan to protect federally-listed species that is currently being discussed and refined.

EARIP Plan To Protect Federally-Listed Species

The EARIP has determined that the plan mandated by Senate Bill 3 will be in the form of a Habitat Conservation Plan ("HCP") that satisfies requirements of the Endangered Species Act ("ESA") and contributes to the recovery of the species.

The EARIP has come up with a plan that it is currently evaluating to ensure that it will satisfy the requirements of the ESA, contribute to the recovery of the listed species, and ensure a stable water supply.

Implementation of the HCP will be divided into three phases. In the first phase, (1) all habitat restoration and other measures to increase the viability of the species and a package of actions to ensure minimum springflow during the drought of record will be put into place ("short-term actions"); (2) a robust adaptive management process will be implemented; (3) long-term springflow levels will be set based on the biological goals in the HCP; and (4) a decision will be made based on information developed in the adaptive management process regarding whether additional actions are needed to achieve the biological goals.

In the second phase, the EARIP will implement any additional actions needed to achieve the biological goals ("long-term actions"). In the third phase, the effectiveness of the overall solution will be monitored and any adjustments necessary to achieve the requisite protectiveness will be implemented.

The cost of implementing the long-term actions is unknown. The cost of implementing the short-term actions is substantial. Those costs are estimated to include over $10.2 million dollars in initial costs and annual costs of over $31 million. The anticipated actions and their estimated cost are set out in Tab 2.

Stakeholders in the EARIP

Approximately 60 to 80 persons routinely attend the monthly meetings of the EARIP and its Steering Committee. Some forty stakeholder groups or individuals have executed a Memorandum of Agreement with the FWS on how the recovery implementation program process will be conducted. A list of the stakeholders is included behind Tab 4.

TAB 4:

PARTICIPANTS IN THE EDWARDS AQUIFER RECOVERY IMPLEMENTATION PROGRAM

The following thirty-nine Stakeholders have executed the 2007 Memorandum of Agreement with the United States Fish and Wildlife Service regarding participation in the Edwards Aquifer Recovery Implementation Program:

Aquifer Guardians in Urban Areas

Alamo Cement Company

Bexar County

Bexar Metropolitan Water District

Carol G. Patterson

City of Garden Ridge

City of New Braunfels

City of San Marcos

City of Victoria

Comal County

CPS Energy

Dan Laroe

Dow Chemical

East Medina Special Utility District

Edwards Aquifer Authority

Gilleland Farms

Greater Edwards Aquifer Alliance

Greater San Antonio Chamber of Commerce

Guadalupe Basin Coalition

Guadalupe-Blanco River Authority

Guadalupe County Farm Bureau

John M. Donahue, Ph.D.

Larry Hoffman

Mary Q. Kelly

Nueces River Authority

New Braunfels Utilities

Preserve Lake Dunlap Association

Regional Clean Air and Water Association

San Antonio River Authority

San Antonio Water System

San Marcos River Foundation

South Central Texas Water Advisory Committee

South Texas Farm and Ranch Club

Texas Bass Federation

Texas Commission on Environmental Quality

Texas Department of Agriculture

Texas Living Waters Project

Texas Parks and Wildlife Department

Texas Water Development Board

Texas Wildlife Association