

Testimony before  
The Committee on Resources  
Subcommittee on Water and Power  
United States House of Representatives  
With respect to S. 214 and H.R. 469

**“United States-Mexico Transboundary Aquifer Assessment Act”**

From

Sharon B. Megdal, Ph.D.

Director, Water Resources Research Center

Professor, Department of Agricultural and Resource Economics

The University of Arizona

Tucson, Arizona

May 10, 2006

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to provide input on the S. 214 and H.R. 469, the “United States-Mexico Transboundary Aquifer Assessment Act.” S. 214 and H.R. 469 are identical bills; for convenience, I will refer to them as the “Bill”.

I serve as Director of the Arizona Water Resources Research Center, the water resources research institute authorized by the Water Resources Research Act of 1984 in Arizona. Located at The University of Arizona, we work with researchers from a multitude of disciplines and stakeholders from all sectors of our region. Like our counterparts in California, New Mexico and Texas, we work closely with the United States Geological Survey, the United States Bureau of Reclamation and numerous others in research and information transfer/outreach programs. While I am from Arizona, I am here to represent the support from the entire border region. We strongly support the passage of this Bill and stand ready to facilitate and work diligently on this program.

This important Bill authorizes the Secretary of the Interior to cooperate with the states along the international border with Mexico, the country of Mexico, and other entities “in conducting a hydrogeologic characterization, mapping and modeling program for priority transboundary aquifers, and for other purposes.” The transboundary aquifer assessment program will provide the scientific foundation necessary for federal, state and local officials to address pressing water resource challenges in the United States-Mexico border region. These challenges are daunting and acute. The program will serve as a catalyst to bring together human capital and financial resources necessary to characterize transboundary aquifers and thereby understand and, hopefully resolve, many of the currently unquantified and therefore unresolved water resource issues.

The importance of water to the growing, arid Southwest cannot be overstated. As the population continues to grow rapidly on both sides of the shared border, the water resource challenges grow. Understanding aquifer characteristics is critical to the human health and economic vitality of this region, which has the special characteristic of sharing a border with Mexico. Addressing water quantity and water quality issues at the international border requires cooperation and participation of many. Important questions of water quantity can be addressed through the modeling and data base development included in the program. Water quality concerns include those associated with salinity, toxins. Differing water quality standards and the physical relationship between surface water and subsurface flows point to the special challenges associated with transboundary aquifers.

The program authorized by this bill will provide the sound scientific information on transboundary aquifers, where the need for information is acute, through a partnership of federal, state and local governments, university researchers and others.

The need for additional scientific information on water resources is well recognized. For example, in Fall 2004 the 85 th Arizona Town Hall concluded that “[t]o avoid crisis management, Arizona must engage in long-term planning based on good science and data collection that should be made widely available throughout the state.” This statement points not only to the need for sound science and data but also the dissemination of the information. The program authorized by this Bill envisions the partnerships necessary to accomplish these tasks. The Water Resources Research Center in Arizona, as well as my sister centers in the other border states, have vast experience working cooperatively to facilitate research relevant to resolving real-world water resource challenges and to disseminate broadly research and study findings. The Bill envisions the partnerships necessary to ensure not only the development of appropriate programs of study but also the dissemination of the scientific information in an understandable manner.

Supporting positions from my counterparts in the other three border states are attached to this testimony in the form of a letter from the California water resource research institute and testimony from my counterparts in New Mexico and Texas. Support is widespread within our states. As evidence of this, I have attached letters of support from the Arizona Department of Water Resources and the Upper San Pedro Partnership. I have also attached a letter of support from the Southwest Consortium for Environmental Research & Policy (SCERP), a bi-national collaboration of United States and Mexican universities, and several letters from Texas and New Mexico interested parties. We request these submissions be made part of the record.

Recent Declarations of the United States-Mexico Border Governors Conference show the increasing importance of cross-border water investigations. In 2004, the statement on water was a sub-statement within the environmental declaration and the subject of an addendum of the 10 border Governors. The Governors resolved to: “Continue to collaborate on projects and discussion regarding water use and conservation on issues, such as groundwater, that provide valuable information for agriculture, human consumption and sustainable economic development.” The 2005 Declaration had water as the second topic listed as “topics of significant importance toward the development of the border region.” The declaration proposed to establish a collaborative work program that includes “the permanent exchange of data and information regarding surface and ground water along the border...”

The letters of support indicate the essential nature of this program. On behalf of Arizona, Department of Water Resources Director Herbert Guenther expresses strong support for the Bill. He notes that Arizona shares three rivers with Mexico. Let me point out that two of the three rivers that cross the Arizona-Sonora, Mexico border run south to north. His letter points to the importance of this program to water resource planning by state and local officials. His and the letter from Judy Gignac, Chair of the Executive Committee of the Upper San Pedro Partnership, emphasize the importance of this program to the Upper San Pedro sub-basin, which is home to Fort Huachuca, the first National Riparian Conservation Area in the country, and the rapidly growing Sierra Vista region. It is also downstream of a Mexican mine and a rapidly growing area south of the border. Her letter states: “Due to increased growth along the Mexican side of the border, there is a critical area of concern regarding sewage contamination seeping into the aquifer and moving northward.” This region is one that has been a focus of Congressman Jim Kolbe, whom we thank for introducing H.R. 469. We would also like to thank Congressman Raul Grijalva for his support and co-sponsorship of this Bill. The figure below shows that border regions in Arizona subject to USGS aquifer studies, which are delineated by the hatched areas, have focused on the Upper San Pedro region and Yuma. Major aquifers along the border, including the Santa Cruz and aquifers within the Tohono O’odham Indian Reservation have not been subject to study. In the case of the Upper San Pedro, where studies have been ongoing, information from south of the border is limited and water quality information is very limited. The need for this Program is clear.

In conclusion, the Bill authorizes a much-needed program for collaborative, scientific investigations to assess transboundary aquifers at the United States border with Mexico. These assessments are essential to quantifying and then addressing critical water quantity and quality challenges in this rapidly growing region. The economic vitality, human health and environment of this border region – in the short, intermediate and long-term – depend on safe and reliable water supplies. On behalf of those who have submitted the attached letters in support of this Bill and The University of Arizona Water Resources Research Center, I wish to reiterate our strong support for this Bill and thank you for the opportunity to present this testimony.

<http://www.sos.state.tx.us/border/bmaconf.shtml>