



Pima County Regional Flood Control District Monthly Brown Bag Series

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The Transboundary Upper Santa Cruz Aquifer System: Ongoing Assessment and Lessons Learned

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Unlike with surface water, there is no US-Mexico treaty governing the management of groundwater. Instead, groundwater along the US-Mexico border has a history of being managed and studied patchily, in fits and start, without coordination between the two countries.

In the early to mid-2000s, a combination of factors, involving the cooperation and efforts of personnel from multiple Mexican and US agencies and institutions, led to a series of binational meetings, new US legislation in 2006, and funding from each country to pursue research on transboundary aquifers. Several binational technical teams were established to address individual aquifers, including what would eventually come to be called the Transboundary Upper Santa Cruz Aquifer System (TUSCRAS). Phase 1 of the work consisted of engaging scientific, governmental, and local communities, to begin to establish relationships, a shared history, and trust. This phase culminated in the signing of a binational agreement in 2009 that established the binationally agreed upon US-Mexico Transboundary Aquifer Assessment Program.

Phase 2, the implementation phase, began with a verbal agreement to proceed with the study of four aquifers and development of associated technical teams, including one for Sonora-Arizona. For the TUSCRAS, significant accomplishments include cross-border data integration and analysis, geophysical and geochemical data collection, and internal, peer, and stakeholder engagement

We will review some of the complexities and issues present in the area such as mineral deposits, historic and ongoing mining, binational wastewater impacts and management, and past and ongoing hydrologic modeling efforts.