

Lower Rio Grande Valley Transboundary Air Pollution Project (TAPP)

Start Date: March, 1996

Completion Date: March, 1997

Project Purpose: The purpose of this study (conducted by U.S. EPA in collaboration with the State of Texas Commission on Environmental Quality (TCEQ)) was to address the local Lower Rio Grande Valley Community's concerns about the potential health impact of local air pollutants, and the lack of local information about air pollution.

Project Description: This study was conducted in order to find out if air pollutants were moving across the border from Mexico into the Lower Rio Grande Valley of Texas (Cameron County) and to see what levels of air pollutants were present. The information also provides a base line against which future levels of air pollutants can be compared to determine if Valley conditions are changing. The approximately \$1 million study was the largest air sampling project by U.S. EPA to investigate the potential for air pollution to move across the U.S.-Mexican border into South Texas. Air pollution and weather data were collected for a year at three fixed sites close to the border in and near Brownsville, Texas.

Accomplishments: The U.S. EPA held a Public Meeting On October 27, 1999 in Brownsville, Texas to announce the results of this study. The study found that overall levels of air pollution were similar to or lower than other urban and rural areas in Texas and elsewhere and that transport of air pollution across the border did not appear to adversely impact air quality on the U.S. side of the Lower Rio Grande Valley. This Public Meeting presentation was summarized as a front-page story entitled "Study Clears the Air on Brownsville Pollution" in <u>The Brownville Herald</u> October 28, 1999; 108:1A,10A.

Expected Outcome(s): The products from this study included a Project Report (EPA Report No.: EPA/600/R-99/047; NTIS Accession No.: PB99-146938), Project Summary (EPA/600/SR-99/047), Community Summary (EPA/600/S-99/004), and Question and Answer Sheet (EPA/600/F-99-009). These are available at www.epa.gov/orsearth/tapp/.

Presentations or Publications: 1) MUKERJEE, S. Selected air quality trends and recent air pollution investigations in the U.S.-Mexico border region. <u>Science of the Total Environment</u> 2001; 276:1-18. 2) MUKERJEE, S., et al. Techniques to assess cross-border air pollution and application to a U.S.-Mexico border region. <u>Science of the Total Environment</u> 2001; 276:205-224. 3) MUKERJEE, S. Communication strategy of transboundary air pollution findings in a U.S.-Mexico Border XXI Program project. <u>Environmental Management</u> 2002; 29:34-56. 4) MUKERJEE, S.; et al. Application of a Dual Fine Particle Sequential Sampler, a Tapered Element Oscillating Microbalance, and other air monitoring methods to assess transboundary influences on PM2.5. <u>Field Analytical Chemistry and Technology</u> 1999; 3:201-217.

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Participant(s): TCEQ. A committee of Valley residents provided input that was incorporated into the design of the study. Products from this research were reviewed by this community committee as well as a scientific committee.