



## Urban Dynamics: Middle Rio Grande Basin

Albuquerque, New Mexico, relies on a system of aquifers in the Middle Rio Grande Basin (MRGB) for its water supply. Recent investigations by researchers from the USGS and other agencies have shown that the aquifer system is not as extensive as was once thought. Understanding Albuquerque's past patterns of urban growth - and predicting where future expansion is most likely to occur - will help policy makers and planners evaluate the impact of continued urban growth on MRGB water resources.

This project will use insights gained through analyzing and modeling urban growth patterns in Albuquerque to determine to what degree existing

water resources can sustain future urban development.

Project participants have created a timeline of historic events that have influenced urban growth and land-use changes in and around Albuquerque. A temporal geographic information system (GIS) has been compiled for analyzing land transformations and a land-use transition matrix program has been developed to evaluate trends in land-use change. Researchers are also using regional land-use data to model future urban growth in Albuquerque through the year 2050, and they are participating in the Middle Rio Grande Council of Governments' FOCUS 2050 regional land use task force.

This project is a joint activity between USGS and Middle Rio Grande Council of Governments (MRGCOG).

Customers include MRGCOG, UNM-Earth Data Analysis Center, City of Albuquerque Environmental Planning Commission, Bernalillo County Planning Commission, Los Alamos National Laboratories, and USGS Water Resources Division, New Mexico District Office.

For more information:  
<http://rockyweb.cr.usgs.gov/html/mrgb/>