



News Release

U.S. Department of the Interior
U.S. Geological Survey

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Land Subsidence in Las Vegas Valley

U.S. Geological Survey (USGS) scientists have completed a study of land subsidence in Las Vegas Valley. The land surface in some areas of Las Vegas Valley has subsided more than 5 feet since the 1940's because ground-water pumpage often exceeds natural recharge. To understand this issue better, USGS scientists have been collecting water-level and land-subsidence data to monitor the effects of pumpage and artificial recharge programs implemented by the Las Vegas Valley Water District and City of North Las Vegas. As part of their study, USGS scientists developed a computer model that simulates past land subsidence at a monitoring site. The model was used to estimate values for hydraulic properties that influence land subsidence.

According to Michael Pavelko, a USGS hydrologist and author of the report, "Las Vegas Valley relies on ground water to meet water demands; so land subsidence, which often is associated with water-level declines caused by pumping ground water, remains an important issue in the valley. The hydraulic-property estimates in the report could be of use to water managers planning the future of the ground-water resource in Las Vegas Valley."

The study was a cooperative effort between the USGS, State of Nevada, and Las Vegas Valley Water District. The results are documented in USGS Water-Resources Investigations Report 03-4083, "Estimates of Hydraulic Properties from a One-Dimensional Numerical Model of Vertical Aquifer-System Deformation, Lorenzi Site, Las Vegas, Nevada," by Michael T. Pavelko. It is available for inspection at the following libraries in southern Nevada (1401 E. Flamingo Rd., and 833 Las Vegas Blvd. North, Las Vegas; 121 W. First North St., Mesquite; 350 N. Moapa Valley Blvd., Overton; 200 Michael Wendell Way, Searchlight; 2840 S. Needles Hwy., Laughlin; 715 Gretta Ln., Indian Springs; and 4th and Ward, Beatty), and at the USGS offices in Carson City (333 W. Nye Lane, Room 220), Henderson (160 N. Stephanie St.), and Elko (275 Third Street, Room 208). The report also may be inspected at the USGS libraries in Menlo Park, Calif., Denver, Colo., and Reston, Va. The report is available on the World Wide Web as a PDF document. The URL is <<http://pubs.water.usgs.gov/wri034083>>.

The report may be purchased at cost from the USGS, Branch of Information Services, Box 25286, Denver, CO 80225-0286 (telephone 1-888-ASK-USGS). The price is \$4.00 per copy plus \$5.00 per order for shipping and handling. Request must specify report number WRIR 03-4083 and should include a check or money order payable to "Department of the Interior--USGS."

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Additional information about this and other USGS studies of water resources in Nevada may be obtained by email to <usgsinfo_nv@usgs.gov> or by visiting our home page at <<http://nevada.usgs.gov>>.

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(Editors: Assistance in accessing the report is available from the
USGS Public Information Assistant in Carson City; call 775-887-7649)