Introduction

This report describes changes in water levels over 10-year intervals in the study area from 1950 and 2009. The study area is located in Bernalillo and Sandoval Counties, New Mexico. The water levels were measured using piezometers, and the changes were analyzed using hydrogeological models.

Predevelopment (pre-1950) groundwater levels were compared to modern levels. The extent of the highly productive parts of the aquifer is less widespread than previously thought, with the production zone typically from less than about 200 to 5 to 30 feet below the land surface.

Increases in water levels were found in 6 of the 9 piezometers examined during 2009–12. The decrease in water levels at the Nor Este site to about 3.5 ft/yr at the Matheson site. On the western side of the Rio Grande, groundwater levels were drawn down more than on the eastern side.

The Middle Rio Grande rift valley that extends from southern Colorado to northern Mexico. The basin is bounded by faults on the east and west, which uplift primarily Precambrian basement rocks on the east and Paleozoic sedimentary rocks on the west. The Rio Grande flows through the center of the basin from north to south.

Methods

The Middle Rio Grande valley is divided into two major subbasins: the upper Rio Grande basin between Cochiti and San Acacia, New Mexico: U.S. Geological Survey Water-Resources Investigations Report 387 [variously paged].

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Simulated and Measured Water Levels and Estimated Water-Level Changes in the Albuquerque Area, Central New Mexico, 1950-2012

Acknowledgments

The authors would like to acknowledge the contributions of the following individuals:...