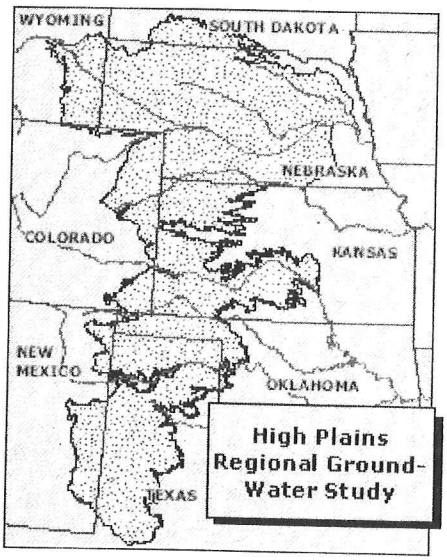
National Water-Quality Assessment (NAWQA) Program

High Plains Regional Ground Water (HPGW) Study

Colorado District Home
What is NAWQA?
What's New!
Study-Area Setting
Current/Past Activities
Significant Findings
DATA
Research Capabilities
Photo Gallery
Contacts
Liaison Committee Information
Publications
Other High-Plains Area Links
Other Agencies Studying High Plains Ground-Water Resources

As part of the the ***NAtional Water-Quality Assessment (NAWQA) Program***, the USGS is evaluating ground-water quality in the **High Plains aquifer system**. The High Plains aquifer system underlies 175,000 square miles in parts of eight States (CO, KS, NE, NM, OK, SD, TX, and WY) (figure 1). Approximately 27 percent of the irrigated land in the United States is in the High Plains and about 30 percent of the ground water used for irrigation in the U.S. is pumped from the High Plains aquifer. **Irrigation withdrawals** in 2000 were **17 billion gallons per day**. In 2000, 1.9 million people were supplied by ground water from the High Plains aquifer with **total public-supply withdrawals of 315 million gallons per day**.



The quality of water in the High Plains aquifer generally is suitable for irrigation use but, in many places, the water does not meet U.S. Environmental Protection Agency drinking-water standards with respect to several dissolved constituents (dissolved solids/salinity, fluoride, chloride, and sulfate). Only sparsely scattered water-quality data are available for pesticides, volatile organic compounds, and trace metals in the High Plains aquifer system. Nutrient data are available, to a varying degree, across the aquifer.

Beginning in 1999 and continuing for a period of 6 years, the High Plains Regional Ground Water Study will intensively investigate the quality of ground-water resources within the study area. Investigations will begin in the Central High Plains and move to the Southern High Plains and Northern High Plains as the project progresses (figure 1). Water quality impairment coupled with water-level declines focus concern on the continued sustainability of this Nationally important ground-water resource.