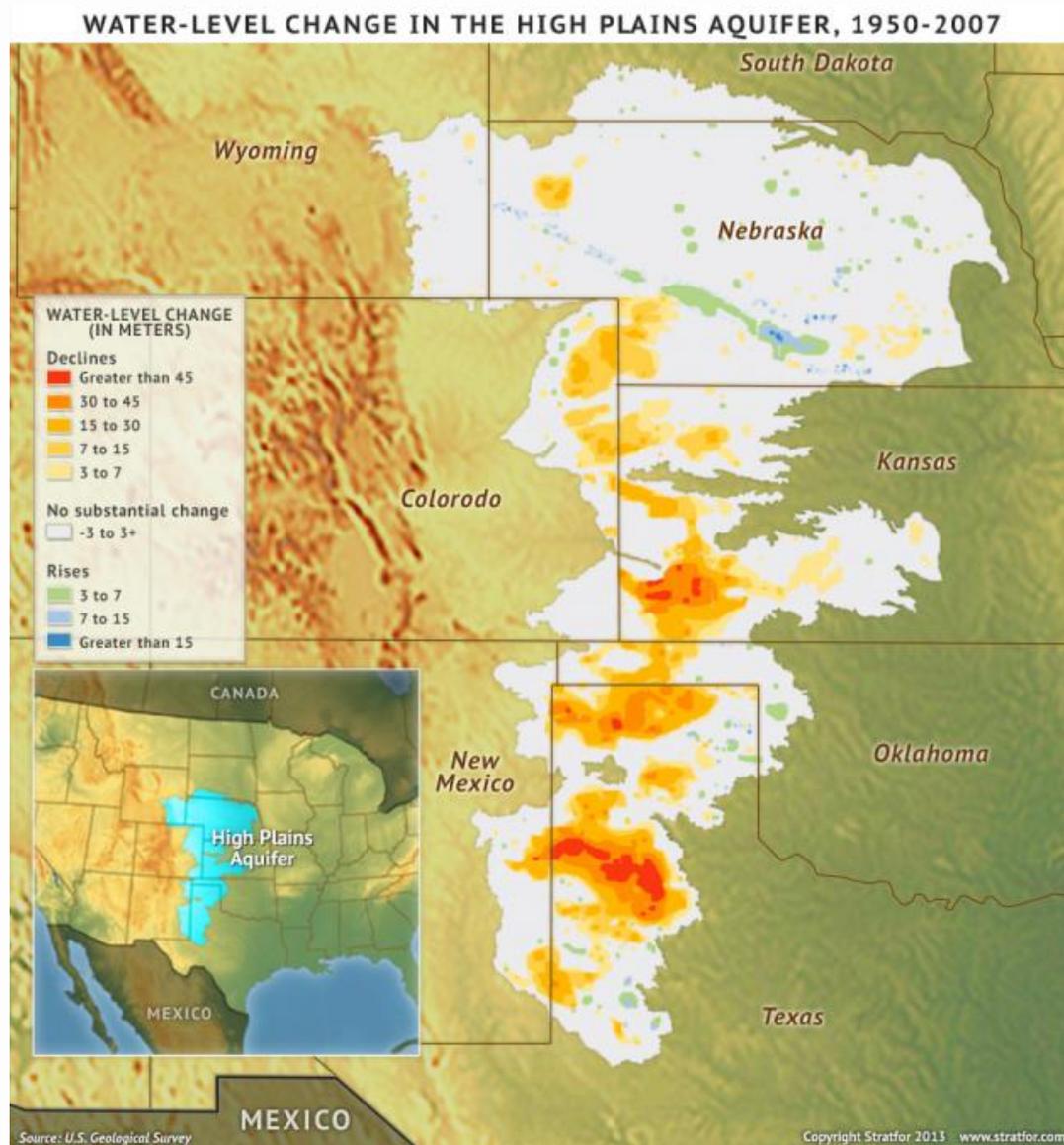




# The High Plains Aquifer

August 12, 2013 | 1745 GMT



## Analysis

Stretching from South Dakota to the Texas Panhandle, the [High Plains Aquifer](#) covers much of the middle of the United States, with parts of eight states relying on its groundwater reserves for agricultural, industrial and municipal purposes. The states that have territory above the aquifer -- South Dakota, Wyoming, Nebraska, Colorado, Kansas, Oklahoma, New Mexico and Texas -- are part of the traditional breadbasket of the U.S. interior, and water reserves from the High Plains Aquifer are vital to regional agriculture.

Despite recent efforts to create a more sustainable strategy for groundwater allocation, studies by the U.S. Geological Survey and NASA show that areas of the High Plains Aquifer are still being overdrawn. Measurements from these studies show that while the northern reaches of the aquifer are still relatively well supplied, heavy groundwater pumping for irrigation and industry in parts of Kansas and the Texas Panhandle has brought aquifer levels down by as much as 45 meters (nearly 150 feet) since the 1950s. The rate of depletion has accelerated since 2000, with roughly one-third of total aquifer depletion since 1900 occurring between 2000 and 2008.

Prolonged groundwater depletion has not yet caused widespread declines in agricultural production, but there is growing anecdotal evidence of localized water shortages harming agricultural operations, evidenced by wells going dry as the water level declines, as well as by reduced agricultural output. Further declines in the water level will make accessing remaining groundwater more expensive and energy-intensive as wells are dug deeper, requiring more energy to pump the water to the surface. Increased operational costs for agricultural production in the United States could have a significant impact on both domestic and international food prices.

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