

Positive gains shown in last two years

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Thanks to above average rainfall, resulting in less irrigation pumping, the average water level of irrigation wells in the Upper Republican Natural Resources District (URNRD) rose slightly this spring.

That marks the second consecutive year average water level in URNRD wells has risen from the previous year.

According to well measurements completed this spring by URNRD staff, the average water level improved by 0.088 feet in the district. This comes on the heels of the 2010 spring measurements when the average went up four-tenths of a foot.

While this year's rise was not as high as last year, it still shows a positive gain.

Until last year, the average depth to water in the district had not shown any gains since the mid- to late 1990s.

The average depth to water now stands at 122.5 feet in the district.

Pumping in the district in the 2010 crop season averaged 10.4 inches per acre, which is lower than the long-term average of 11.9 inches per acre.

The gain in water levels the past two years stems a series of declines dating back to 2001.

Those drops came as the result of a seven- to eight-year drought that peaked around 2008.

Gains in Chase County

This spring's measurements showed the average depth to water improved by 0.48 feet in Chase County.

Perkins County showed a slight decline of 0.088 feet while Dundy County showed a decline of 0.285 feet.

The improvement in Chase County gave the district a positive average for the spring 2011 measurement period.

Presently, the NRD measures nearly 400 wells in the district annually, including 158 in Chase County; 141 in Perkins County; and 100 in Dundy County.

The district also has historical measurements on 243 wells dating back to 1980.

In the 10-year period from 1980 to 1990, the depth to water showed a loss of about five feet.

From 1991 to 2000, that loss continued at the pace of about 5.5 feet.

The biggest decline occurred during the drought years from 2001 to 2009, where the water level fell slightly more than 12 feet.

So for the 30-year period, the decline has totalled around 22 feet.

The total depth to water in the district, also known as saturated thickness, still remains more than 400 ft. deep in some areas of the district.