U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
HARRIS-GALVESTON SUBSIDENCE DISTRICT,
CITY OF HOUSTON, FORT BEND SUBSIDENCE DISTRICT,
LONE STAR GROUNDWATER CONSERVATION DISTRICT, AND
BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

SCIENTIFIC INVESTIGATIONS MAP 3263

Approximate water-level changes, Evangeline aquifer, 1990–2013—SHEET 9 OF 16

Kasmarek, M.C., Johnson, M.R., and Ramage, J.K., 2013, Water-level altitudes 2013 and water-level changes in the Chicot, Evangeline, and Jasper aquifers and compaction 1973–2012 in the Chicot and Evangeline aquifers, Houston-Galveston region, Texas

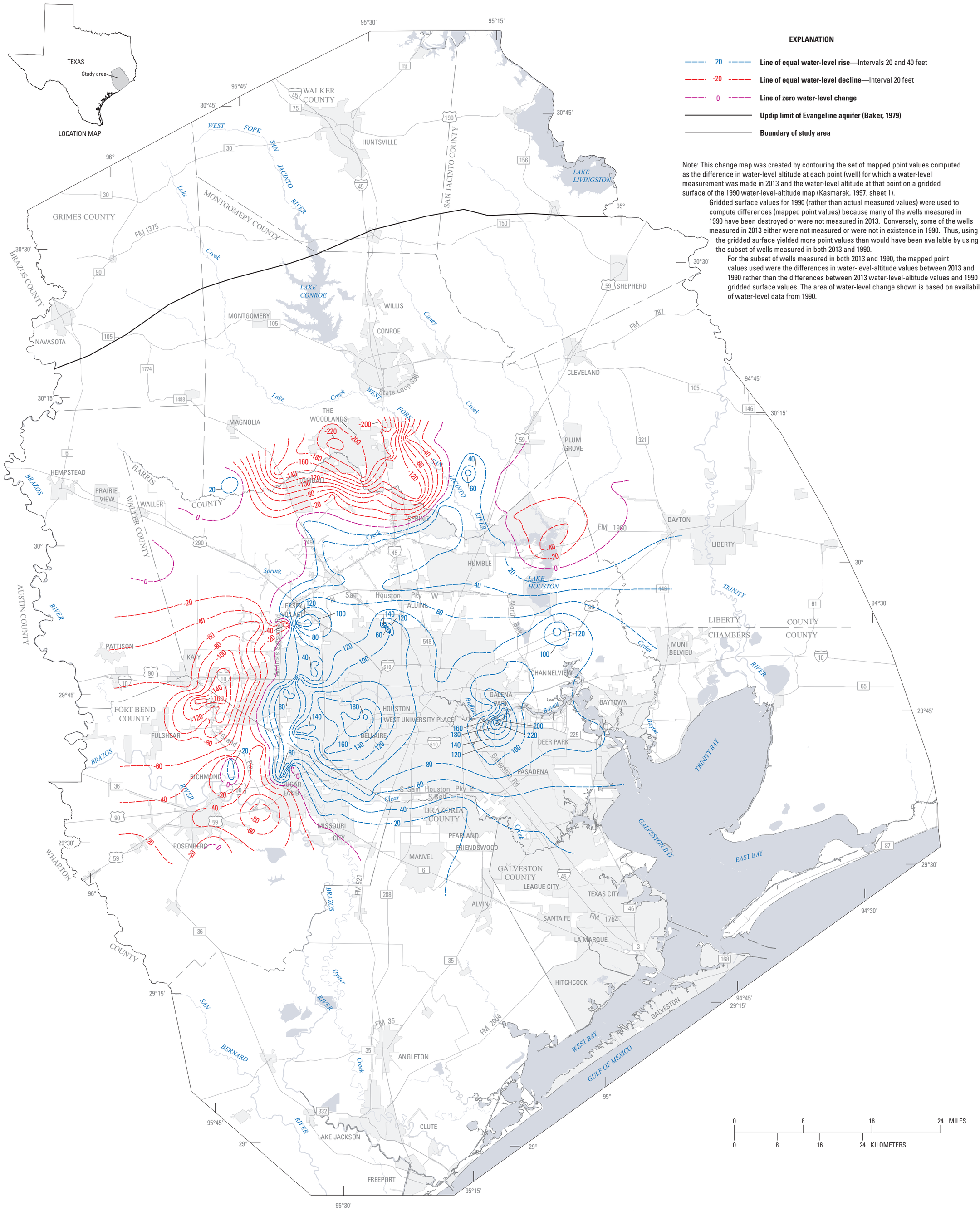
EXPLANATION

- **Line of equal water-level rise**—Intervals 20 and 40 feet
- **Line of equal water-level decline**—Interval 20 feet
- **Line of zero water-level change**
- **Updip limit of Evangeline aquifer (Baker, 1979)**
- **Boundary of study area**

Note: This change map was created by contouring the set of mapped point values computed as the difference in water-level altitude at each point (well) for which a water-level measurement was made in 2013 and the water-level altitude at that point on a gridded surface of the 1990 water-level-altitude map (Kasmarek, 1997, sheet 1).

Gridded surface values for 1990 (rather than actual measured values) were used to compute differences (mapped point values) because many of the wells measured in 1990 have been destroyed or were not measured in 2013. Conversely, some of the wells measured in 2013 either were not measured or were not in existence in 1990. Thus, using the gridded surface yielded more point values than would have been available by using only the subset of wells measured in both 2013 and 1990.

For the subset of wells measured in both 2013 and 1990, the mapped point values used were the differences in water-level-altitude values between 2013 and 1990 rather than the differences between 2013 water-level-altitude values and 1990 gridded surface values. The area of water-level change shown is based on availability of water-level data from 1990.



Sheet 9. Approximate water-level changes in the Evangeline aquifer, Houston-Galveston region, Texas, 1990–2013.

Base from U.S. Geological Survey digital data, 1:100,000
Universal Transverse Mercator projection, Zone 15
North American Datum of 1927

Water-Level Altitudes 2013 and Water-Level Changes in the Chicot, Evangeline, and Jasper Aquifers and Compaction 1973–2012 in the Chicot and Evangeline Aquifers, Houston-Galveston Region, Texas

By
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2013

Information regarding water resources in Texas is available at http://tx.usgs.gov/