



Working toward a Sustainable Water Supply

An ongoing series on IDWR hydrologic investigations working toward a Sustainable Water Supply SEPTEMBER 2026

Treasure Valley Groundwater Trends Hydrologic Report 1980-2025

IDWR monitors groundwater levels in the Treasure Valley with an active network of over 200 wells (Figure 1). Staff measure water levels twice per year in the spring and fall. Nearly half of the wells are equipped with continuous data loggers. The network is expanded into areas where additional information is needed.

In 2026, IDWR developed maps to illustrate changes in groundwater levels across the Treasure Valley for the comparison periods of 1980-2000 and 2000-2025. The maps on the inside of this brochure highlight broad spatial patterns of water level change across the region.

Treasure Valley Groundwater

Resources: The aquifer system beneath the Treasure Valley is part of the larger Western Snake River Plain Aquifer. The geology underlying the region has been described by experts as being “extremely complex” – heavily stratified by multiple layers of silt, sand, and rock.

In very generalized terms, groundwater in the Treasure Valley has been described as occurring within two aquifer systems. A shallow water-table aquifer serves many domestic and stock water wells. Wells drilled to intermediate and deep depths tap into a complex aquifer system that supplies much of the area’s water, serving communities through munic-

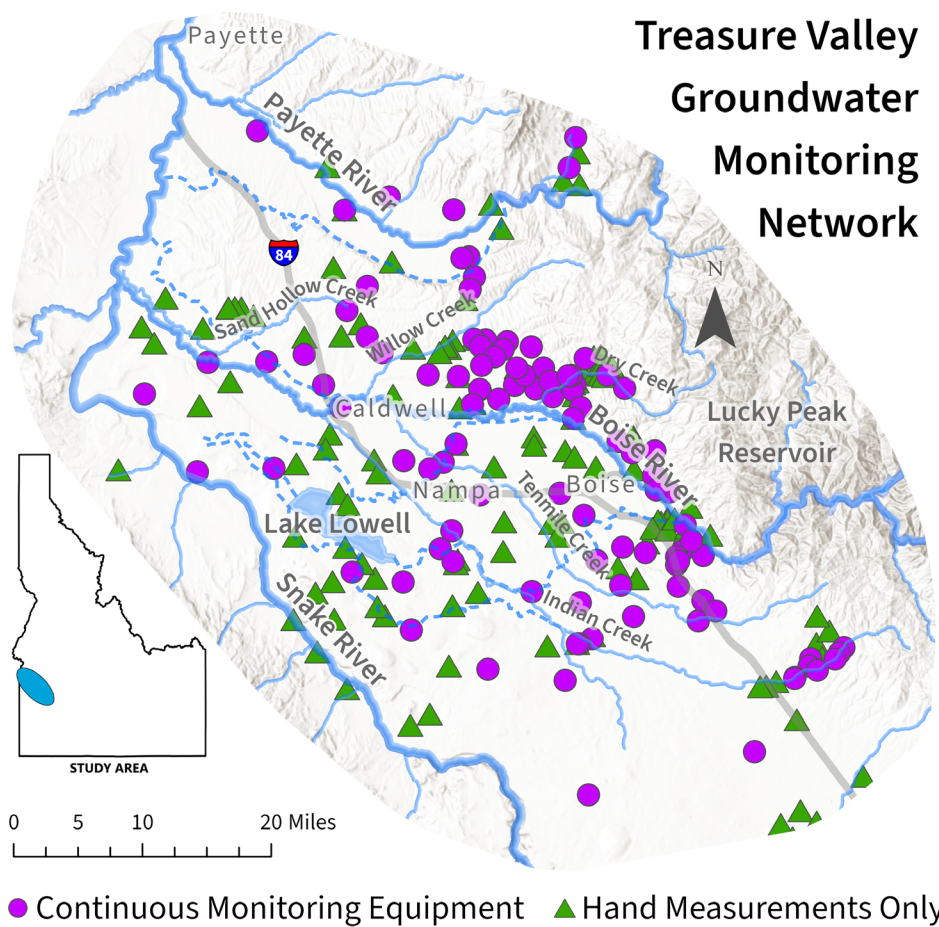


Figure 1: Wells monitored in the Treasure Valley.

Project: Ongoing IDWR monitoring program to track groundwater levels in over 200 monitoring wells in the Treasure Valley, Southwest Idaho.

ipal providers such as Veolia (Boise), the City of Meridian, and others.

Purpose and Need for Monitoring:

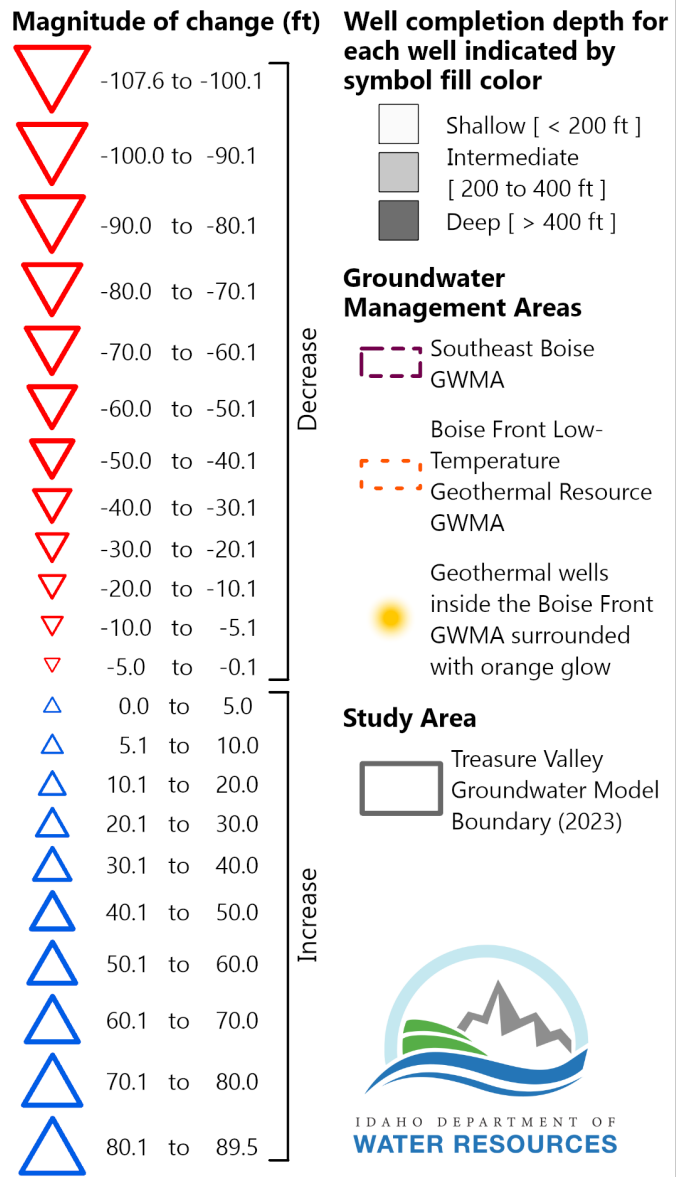
An update to groundwater-level trends in the Treasure Valley is important and timely. Comprehensive groundwater maps have not been updated since the early 2000s. Since that time, the region has experienced



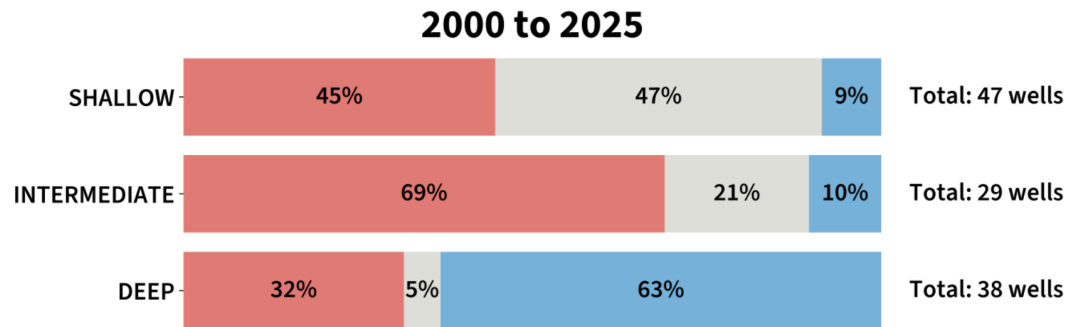
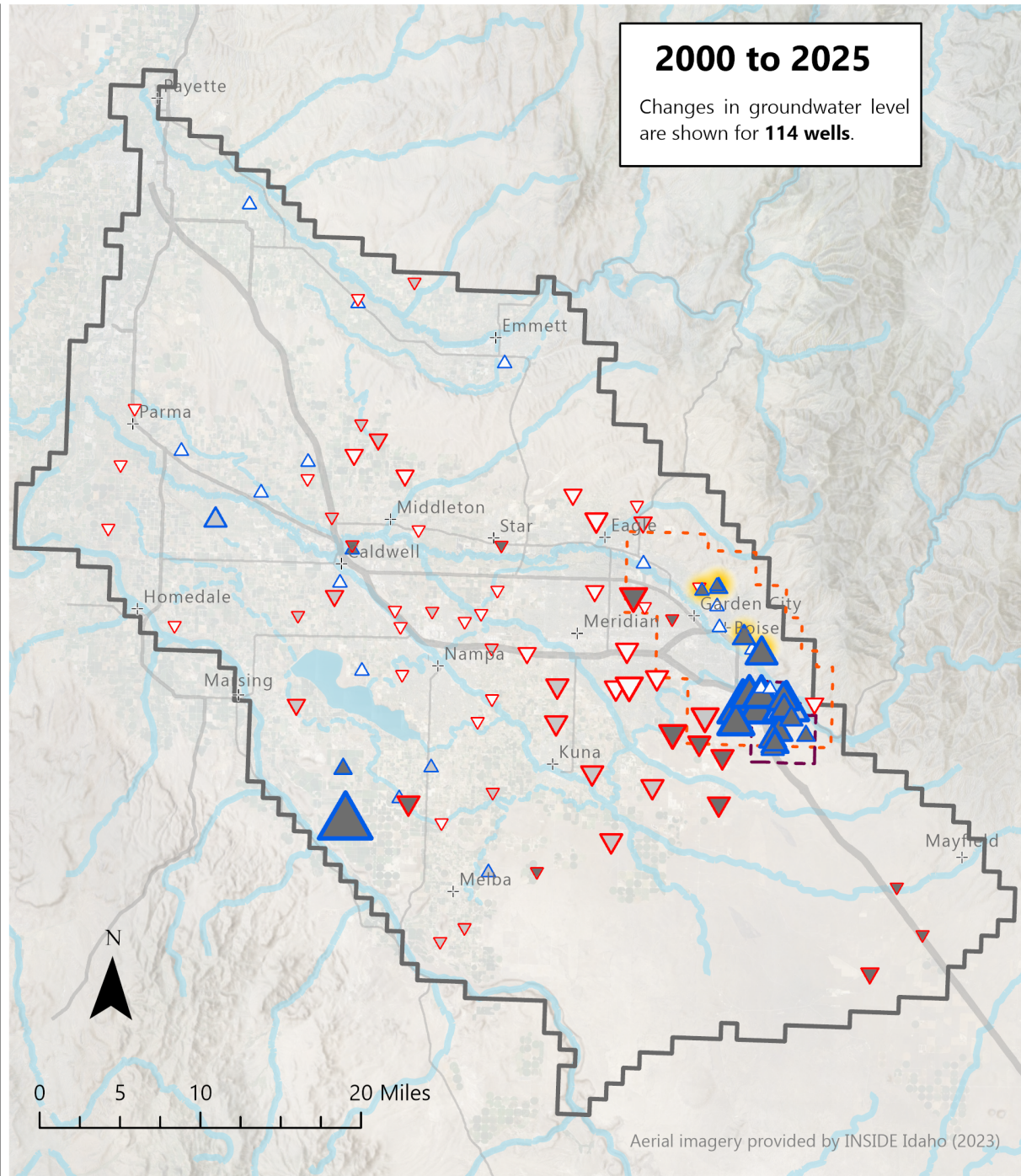
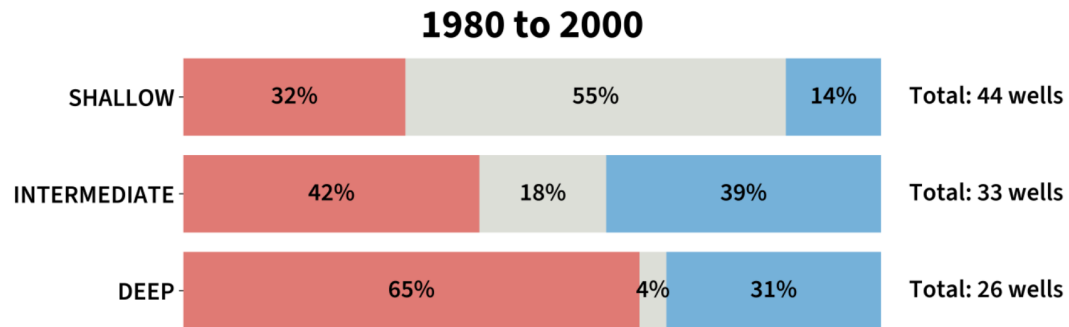
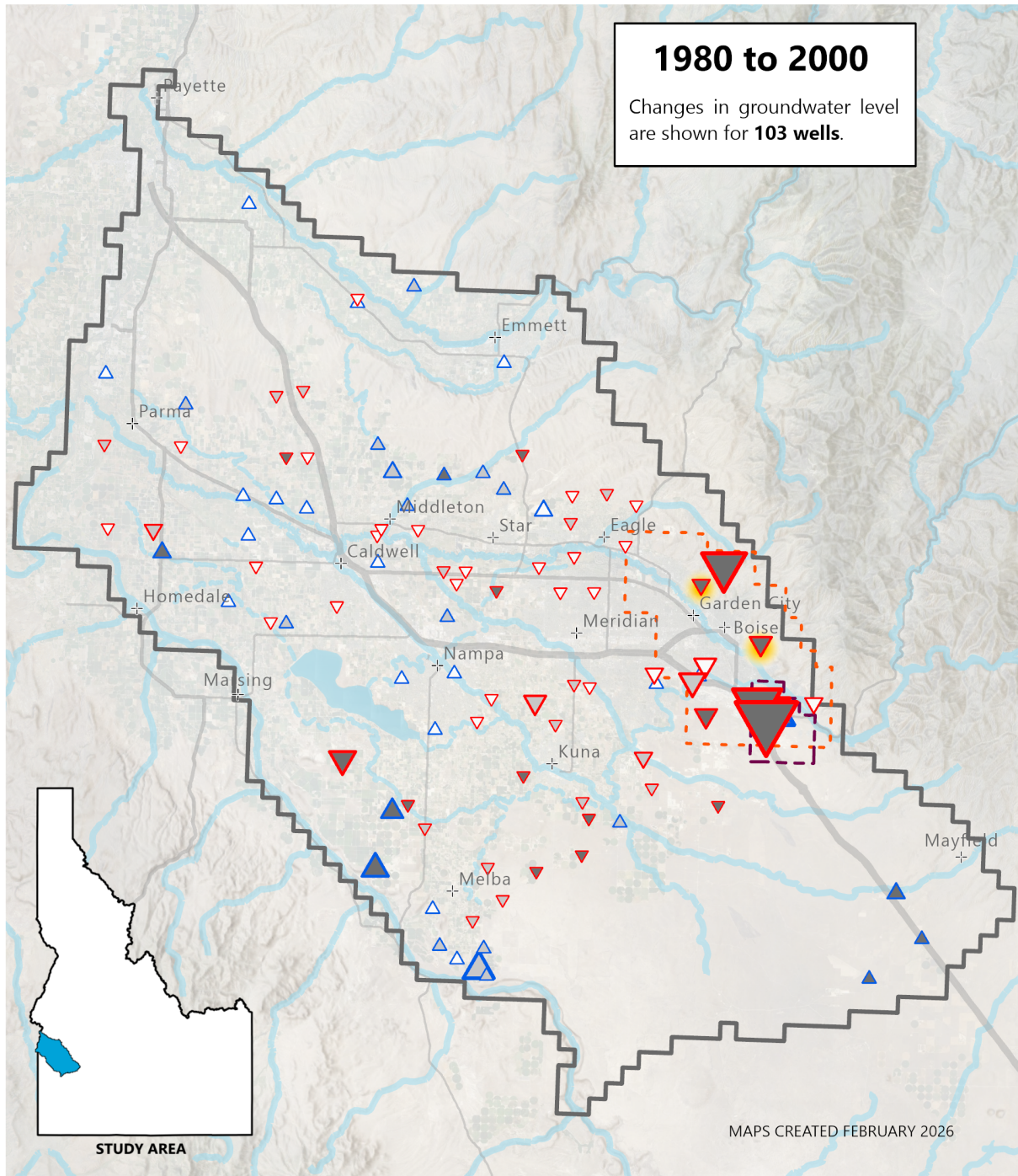
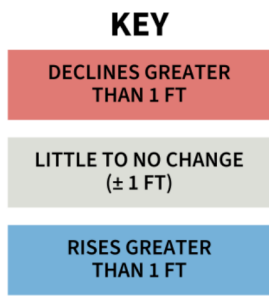
Working toward a Sustainable Water Supply



Treasure Valley Groundwater-Level Changes:



A summary of how many wells declined, rose, or stayed the same at each depth during each time period.





Working toward a Sustainable Water Supply

A notable detail of the change maps is the groundwater-level recovery in the Southeast Boise Groundwater Management Area (GWMA), which was designated in 1994 due to concerns about declining water levels. Several deep wells in the area showed groundwater-level declines of over 50 ft in the 1980-2000 comparison period. Groundwater levels rose in the subsequent 2000-2025 period (Figure 2).

These increases are attributable to a combination of efforts implemented in the GWMA by water users, including a reduction in pumping and managed aquifer recharge. IDWR maintains a monitoring network of over 30 wells in and around the GWMA and produces annual reports summarizing water levels in the area.

Southeast Boise GWMA: A Success Story

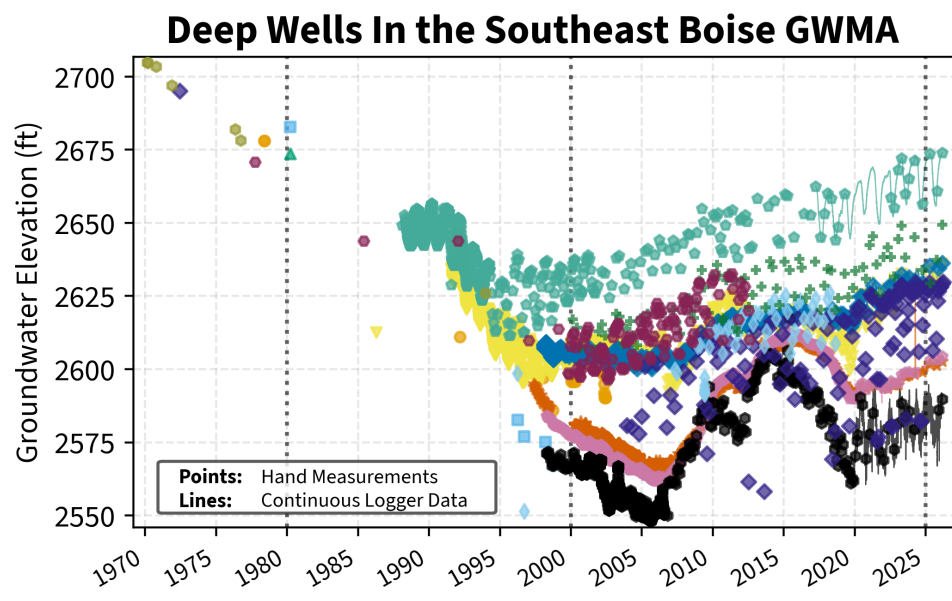


Figure 2. Groundwater elevation over time for deep wells in the Southeast Boise GWMA. Each color represents a unique well that is monitored. Dashed lines correspond with time periods used to develop change maps in this document.

(Continued from page 1)

significant changes that influence groundwater levels including population growth, land use changes, irrigation practices, changes to localized and regional pumping, and climatic variability.

Groundwater-level changes are influenced by a combination of natural processes and human activities, with their effects varying across the Treasure Valley.

Map Methodology: Data were obtained from the publicly available IDWR Groundwater Data Portal. Groundwater-level change was calculated for each well as the difference between measurements in a later period versus an earlier period. Comparison years were selected based on data availability.

Wells were placed into three depth categories based on completion depths reported on drilling logs: Shallow (less than 200 ft), Interme-

diate (200-400 ft), and Deep (greater than 400 ft). Completion depth does not necessarily equate to the depth from which a well obtains water, as this depends on the interval open to the aquifer.

Minor changes such as ± 1 ft are displayed as increases and decreases, respectively. Care should be taken when interpreting very small groundwater-level changes.

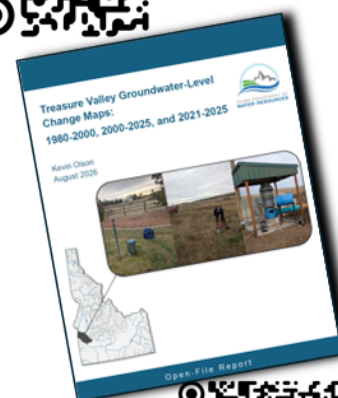
Results: Between 1980 and 2000, groundwater-level declines were more common than rises. Both shallow and deep wells were more likely to experience declining water levels. Groundwater-level increases did occur at all well depths but were less common, and approximately one-third of all wells showed little to no change.

From 2000 to 2025, declines became more frequent in shallow and intermediate-depth wells. Deep wells,

however, showed a shift towards rising groundwater levels. About one-quarter of all wells showed little to no change.



Access the Data Portal!



Read the Full Report!

