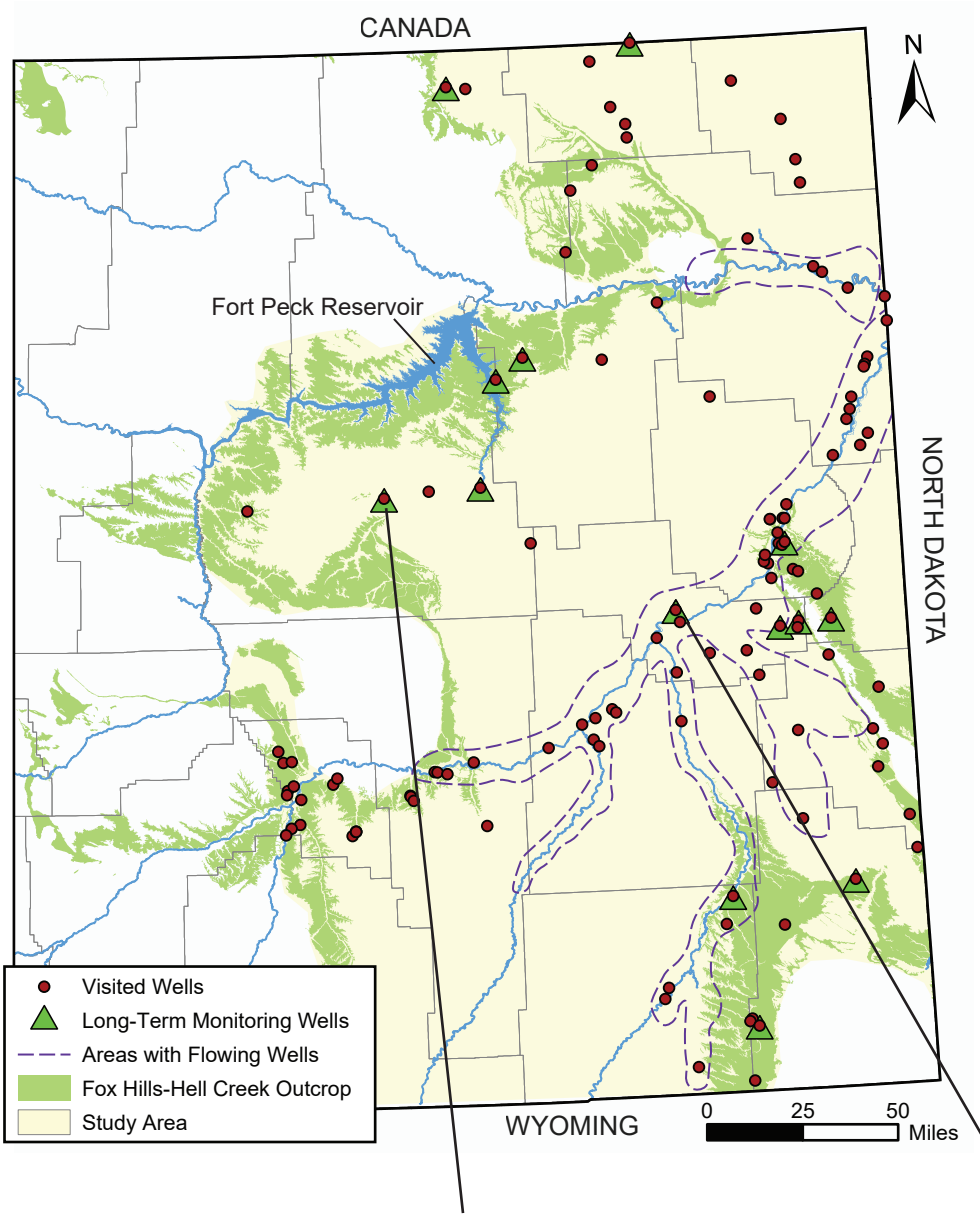
Fox Hills-Hell Creek Aquifer Update: House Bill 935

January 2026



Project Overview

The Fox Hills-Hell Creek (FHHC) aquifer underlies about 37,300 sq-mi of eastern Montana, providing domestic, stock, municipal, and industrial water. In topographically low areas such as the Yellowstone River valley, FHHC wells may "flow" at the surface.

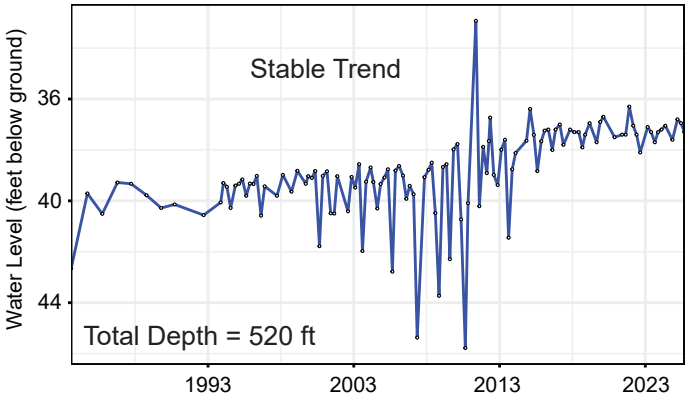
HB935 was passed in response to concerns about water availability and declining water levels in the FHHC aquifer. The bill requires MBMG to compile available data, collect new data, and develop a preliminary water budget and model.

Data compilation began in spring 2025. New water-level measurements have been collected over the summer and fall, especially targeting wells with historical data to compliment long-term data from the statewide monitoring well network.

To date:

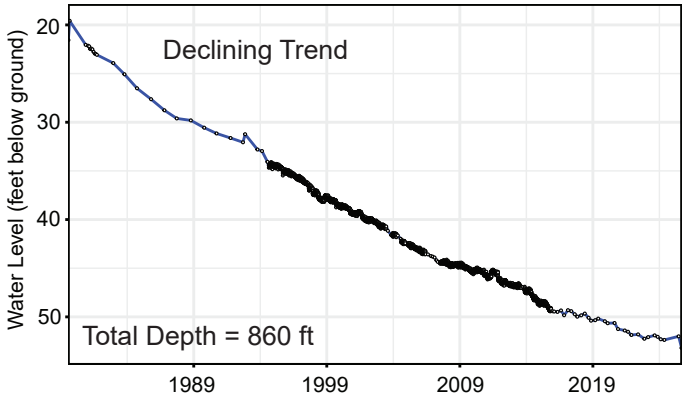
- 123 wells have been visited; 79 with historical data.
- 20 wells have long-term data (more than 25 years); 9 are instrumented to provide continuous data.

Long-Term Monitoring Well 31165 Hydrograph



FHHC water levels near Jordan, MT show a stable trend with seasonal fluctuations, and a slight overall increase since monitoring began in 1983.

Long-Term Monitoring Well 1846 Hydrograph

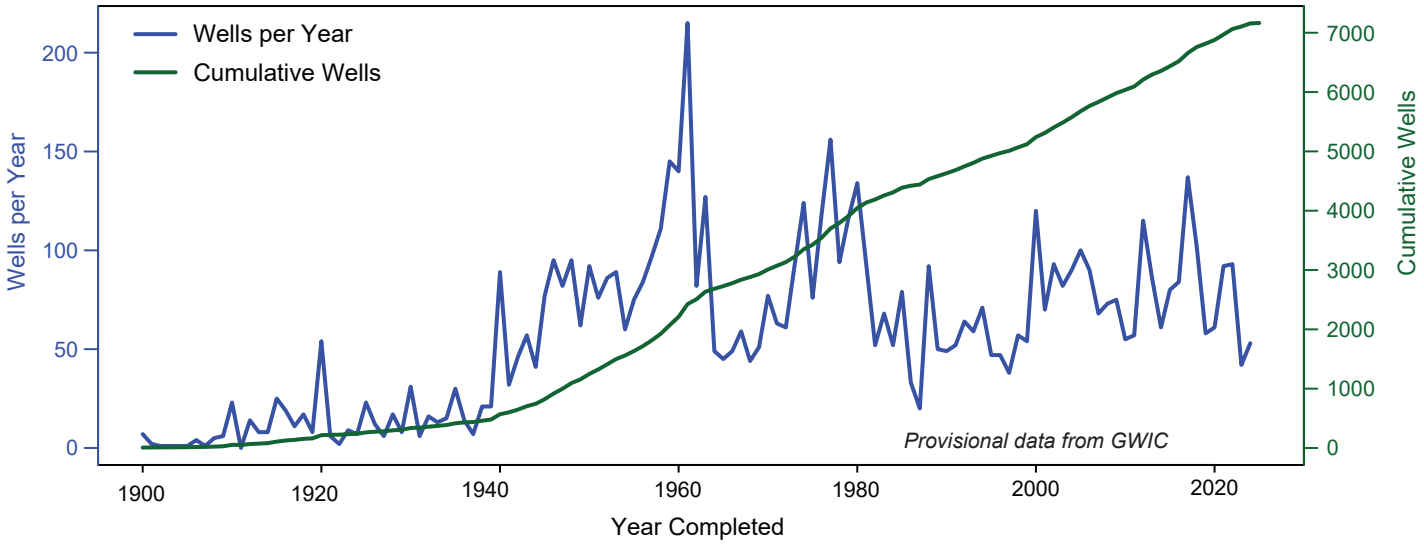


FHHC water levels in Terry, MT have declined more than 30 ft since monitoring began in 1979.

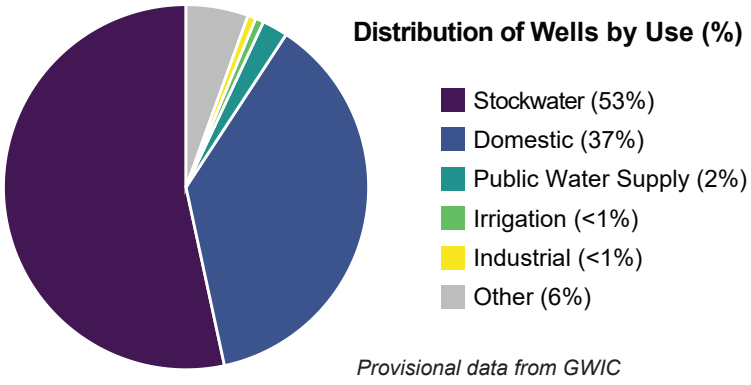
Preliminary Statistics

- Records from the Montana Ground Water Information Center (GWIC) indicate about 7,600 wells are completed in the Fox Hills-Hell Creek aquifer.
- Well installations peaked in the 1960s and late 1970s, and have generally dropped since the 1980s.

Wells Completed and Cumulative Wells, 1900 - 2025



- Most FHHC wells (90%) have a reported use of domestic or stockwater. These are typically low-yield (< 35 gpm) “exempt wells”.
- DNRC personnel report that most of the permitted high-yield (> 35 gpm) FHHC wells have a reported use of municipal or industrial.
- FHHC water quality is slightly mineralized, with a TDS concentration of about 1,000 mg/L. High sodium concentrations make the water unsuitable for irrigation.



Upcoming work

- Identify areas of groundwater decline; compile groundwater flow-maps; and prepare a water budget and model.
- Continue field-data collection to fill gaps (summer 2026).
- Continue to compile and evaluate existing FHHC well data.
- Develop an interactive web-application to deliver data and maps.

For more information, please contact:

Alan English, GWAP Program Manager
aenglish@mtech.edu
(406) 496-4765

Sara Edinberg, HB935 Project Coordinator
sedinberg@mtech.edu
(406) 496-4381

To access project data, visit the GWIC website:
mbmggwic.mtech.edu