



Fox Hills-Hell Creek Aquifer Update: House Bill 935

May 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 the Yellowstone River valley, FHHC wells may “flow” at the surface.

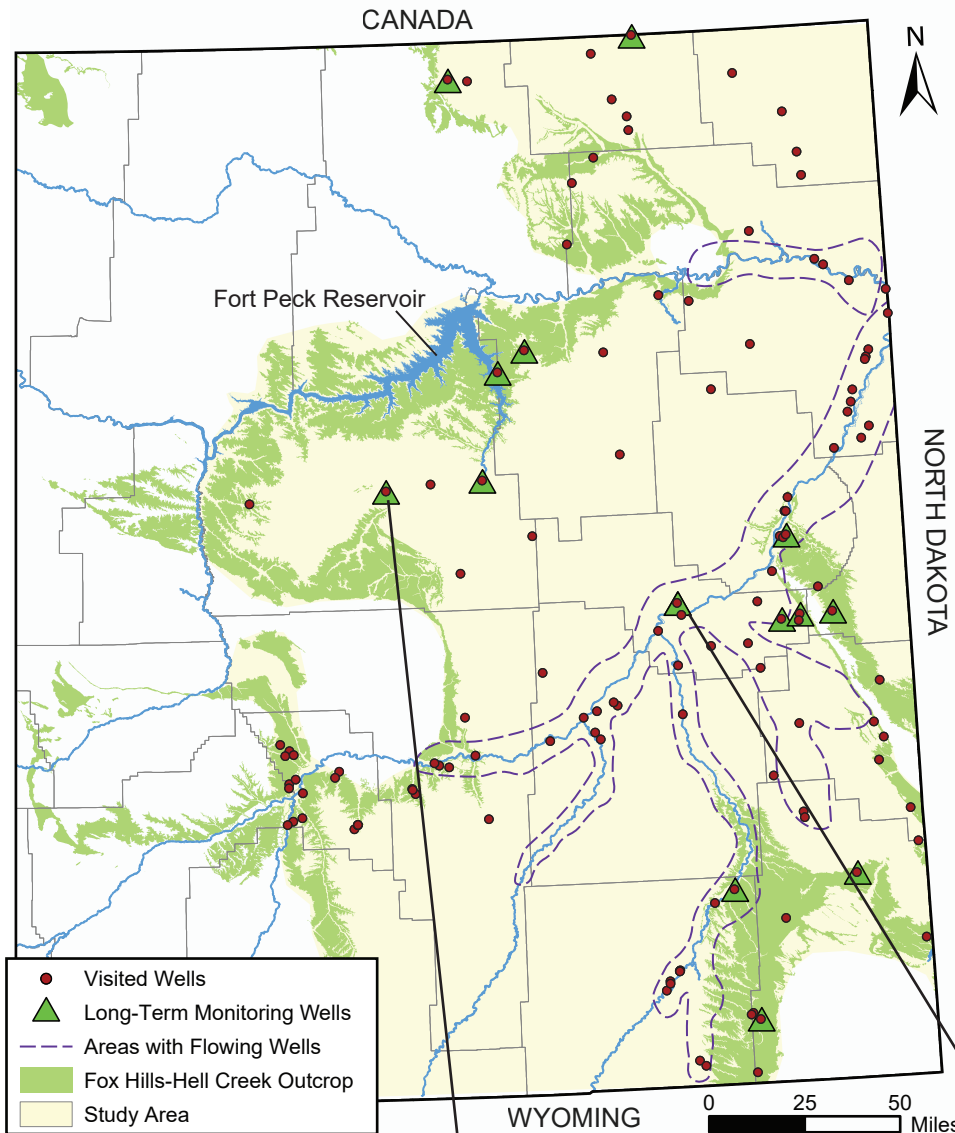
HB935 was passed in response to concerns about water availability and declining water levels. The bill directs MBMG to compile available data, collect new data, and develop a preliminary water budget and model.

This work builds on statewide groundwater monitoring and assessment programs established in 1991 (MCA 85-2-901).

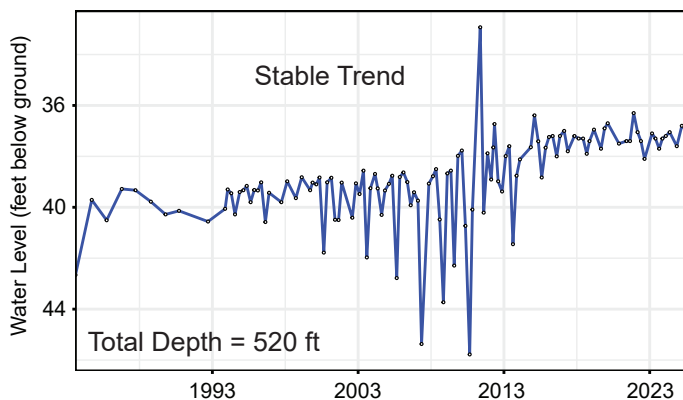
New data collected in 2025 targeted wells with historical data to compliment long-term data from the statewide monitoring well network.

To date:

- 120 wells have been visited; 76 with historical data.
- 20 wells have long-term data (more than 25 years); 9 are instrumented to provide continuous data.

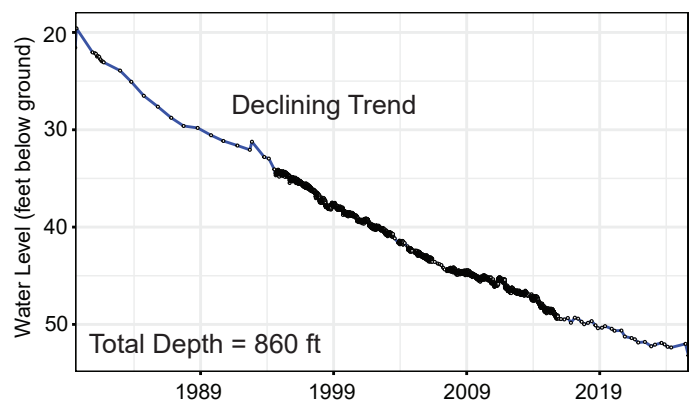


Long-Term Monitoring Well 31165 Hydrograph



FHHC water levels near Jordan, MT show a stable trend with seasonal fluctuations, and a slight overall increase since monitoring began in 1983. Data sourced from MBMG's Ground Water Information Center (GWIC).

Long-Term Monitoring Well 1846 Hydrograph

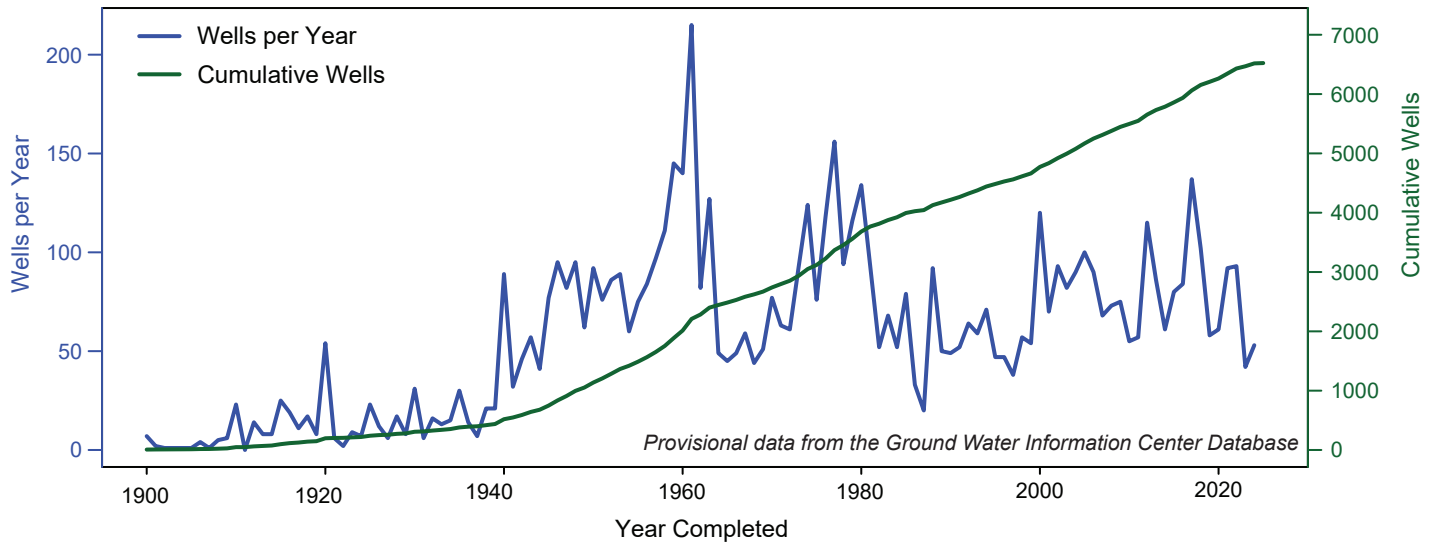


FHHC water levels in Terry, MT have declined more than 30 ft since monitoring began in 1979. Data sourced from MBMG's Ground Water Information Center (GWIC).

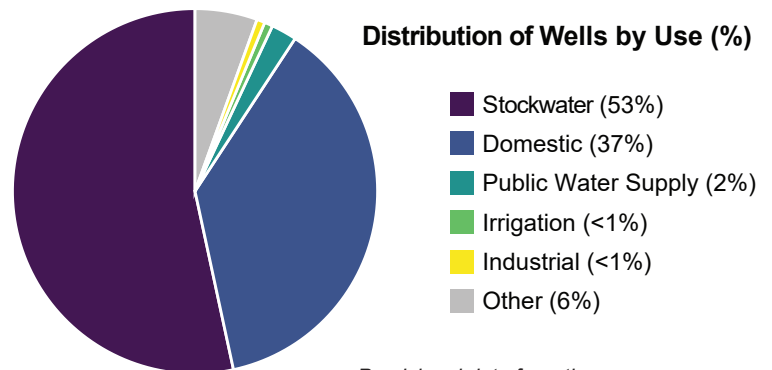
Preliminary Statistics

- Records from the Montana Ground Water Information Center (GWIC) indicate about 6,500 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 FHC wells (90%) used for domestic or stockwater. These are typically low-yield (< 35 gpm) “exempt wells”.
- Most DNRC permitted high-yield (> 35 gpm) FHC wells have a reported use of municipal or industrial.
- FHC water quality is slightly mineralized, with a TDS concentration of about 1,000 mg/L. High sodium concentrations make the water unsuitable for irrigation.



Provisional data from the Ground Water Information Center Database

Upcoming work

- Continue field-data collection to fill data gaps (anticipated by June 2026).
- Continue to compile and evaluate existing FHC well data.
- Develop an interactive web-application to deliver data and maps.
- Finalize well coding in GWIC
- Complete structure maps
- Construct water-table maps
- Begin building the preliminary groundwater model

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