



Know Your Water Project, Fort Hays State University:

Tatom Smith, Gus Peine, Carter Will, Dr Jenne Lambert Sumeral, Dr. Richard Lisichenko

Introduction

What is Know Your Water?

A collaborative, multi-agency initiative to improve water quality, promote conservation, and engage Kansas communities through education, testing, and outreach.

Why it matters:

Western Kansas faces unique water challenges — from inefficient irrigation to groundwater contamination. Phase II builds on past success to expand testing, education, and conservation efforts across the region

About our Project

Water Quality Testing & Mapping
200+ domestic wells sampled across 4 regions
Testing for arsenic, nitrate, E. coli, uranium, and more
Longitudinal database tracks seasonal and precipitation-based changes

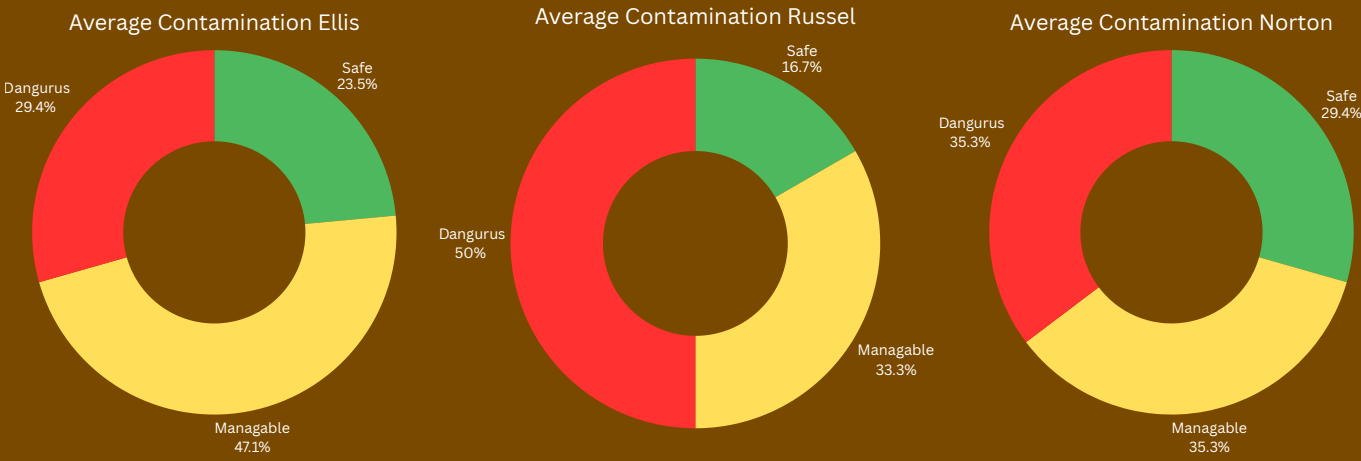
Results

Over 80 private wells were tested across Ellis, Norton, Hays, Victoria, and Geneseo between Fall 2024 and Spring 2025.

Wells included both domestic and landscape irrigation systems.

Regular testing and public awareness are essential, especially for rural well users.

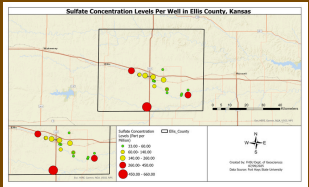
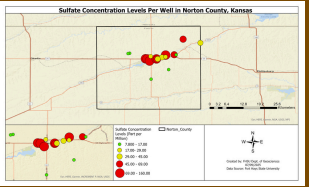
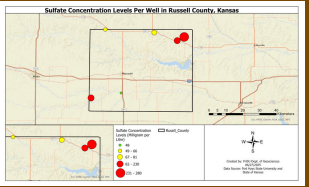
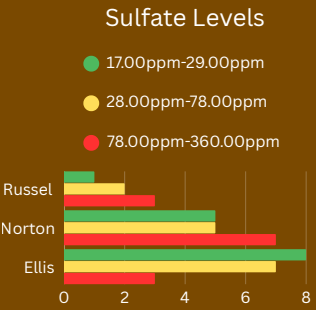
Continued monitoring and targeted interventions are needed to ensure safe drinking water.



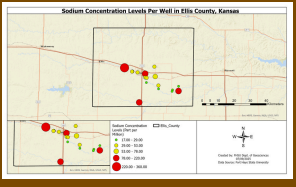
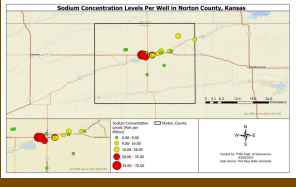
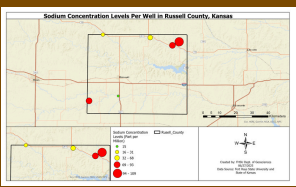
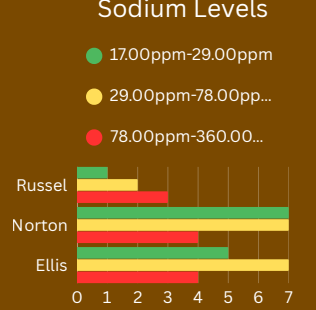
Method

- Sampling Scope:
- 80 domestic wells sampled
 - 4 distinct regions across Western Kansas
 - Seasonal testing
- Contaminants Tested:
- Arsenic
 - Nitrate
 - E. coli
 - Uranium
 - Additional trace elements

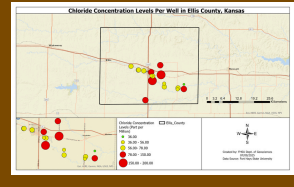
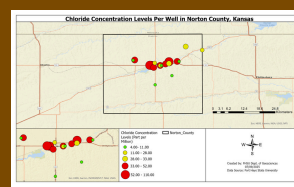
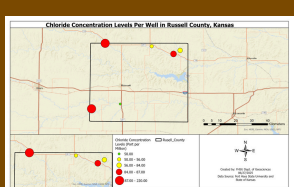
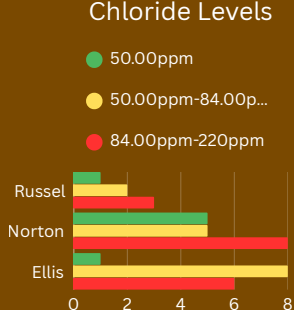
Sulfate



Sodium



Chloride



Refrences

- Authors: Tatom Smith, Dr. Jeanne Lambert Sumrall
- Know Your Water Project Grant Documentation, Phase II (2024–2025), Fort Hays State University
 - Water Quality Maps and Sampling Data, Dr. Richard Lisichenko, FHSU Geosciences
 - Lab Results Provided by Servi-Tech Laboratories
 - Regional Well Sampling Records (Ellis, Norton, Hays, Victoria, Geneseo), Fall 2024–Spring 2025
 - Lambert Sumrall, J., & Lisichenko, R. (2025). Faculty mentorship and technical guidance, Know Your Water Project, FHSU Geosciences.
 - Peine, G., & Will, C. (2025). Field sampling and data collaboration, Know Your Water Project, FHSU Geosciences.
 - Fort Hays State University Geosciences Department. (2025). Institutional support and grant administration.
 - Western Kansas Residents. (2025). Community participation in well sampling and conservation outreach.