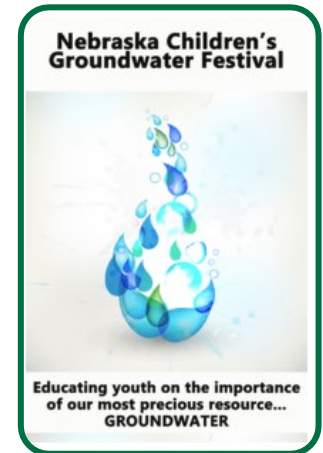
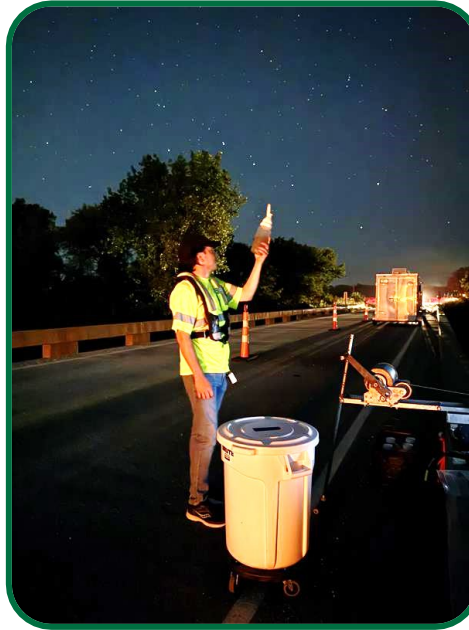


Thomas recently presented to Kansas Department of Transportation (KDOT) and Kansas Water Office (KWO) on USGS water-quality monitoring to characterize the downstream effects of Water-Injection-Dredging (WID) at Tuttle Creek Reservoir. USGS has been collecting samples and real-time water-quality data at several monitoring sites downstream of the reservoir during the first two WID demonstrations in 2025 and 2026. The next demonstration is currently scheduled for June 2026. The USGS CPWSC has been collaborating with KDOT on temporary lane closures as opportunities to ensure sampling crew safety especially during night sampling and enabling rapid-response sampling. Pictured left is Nick collecting a sediment sample at the KDOT lane closure at Big Blue River near Manhattan KS.



On May 12<sup>th</sup>, 2026, Nathan, Cory, and Mikaela participated in the 41<sup>st</sup> annual Nebraska Children's Groundwater Festival. The groundwater festival is hosted by the Central Platte Natural Resources District and brings together roughly 800 fifth graders from 23 schools across Nebraska to learn about Nebraska's groundwater resources. The Central Plains Water Science Center presented an interactive aquifer activity where students could see in real time the impacts of pumping and contamination on our local aquifers.

The Algal and Environmental Toxins (AET) unit recently installed a gas chromatographer at the Organic Geochemistry Research Lab (OGRL) lab in Kansas (pictured right) to be used in tandem with a triple quadrupole mass spectrometer. This allows the AET unit to further expand its analytical capabilities in support of harmful algal bloom research and other water quality projects. For further information on the AET unit and the OGRL lab, visit: [FY26 Capabilities and Services | U.S. Geological Survey](#)

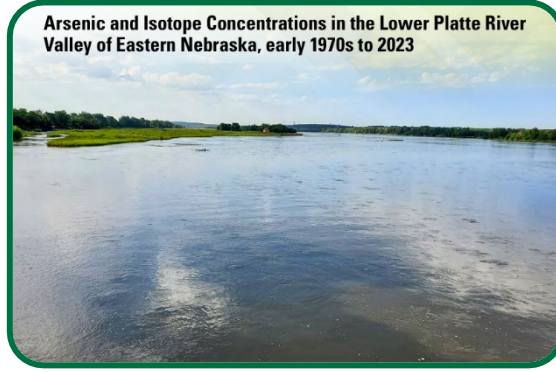


In 2024, the Lower Loup Natural Resources District began a pilot study with the CPWSC to support potential water-quality management actions to reduce nitrate concentrations in groundwater. Nebraska's multibillion-dollar rural economy is heavily dependent on the production of corn, which requires the use of fertilizer to sustain yields. Historic fertilizer application rates have exceeded in-season crop demands and resulted in increases in nitrate concentrations in groundwater. As a result, improvements in groundwater quality will require careful management of fertilizer application rates, application timing, and efficient groundwater irrigation to reduce nitrate leaching losses while sustaining crop yields. This pilot project was recently expanded through cooperation with the to the Central Platte and Upper Big Blue Natural Resources Districts, which collectively hold one third of Nebraska's irrigated acres, with support from the Nebraska Water Sustainability Grant Program. Pictured left is CPWSC staff collecting soil samples to support this study.

## Science Spotlights

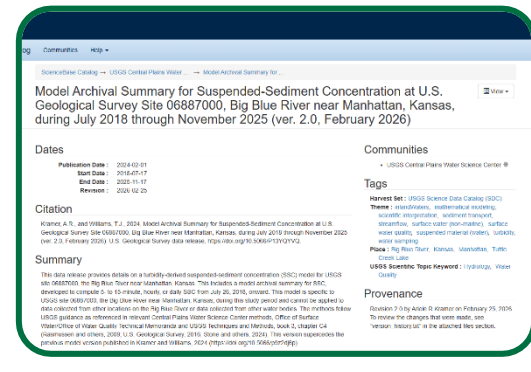


*Datasets used to represent the ten subunits of the Texas Coastal Uplands and Mississippi Embayment aquifer system, Alabama, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, and Texas (ver. 2.0, March 2026)* was recently published to USGS Sciencebase. These data were created by the National Brackish Groundwater Assessment program with the original intent to investigate the locations of usable inland brackish and saline groundwater across the United States in assistance with the National Water-Quality Assessment Project (NAWQA). The data contains spatial datasets including aquifer system extent and outcrop datasets. Read more at: <https://doi.org/10.5066/P13SHHMR>



**Arsenic and Isotope Concentrations in the Lower Platte River Valley of Eastern Nebraska, early 1970s to 2023**

*Arsenic and Isotope Concentrations in the Lower Platte River Valley of Eastern Nebraska, early 1970s to 2023* was recently published. The city of Lincoln, Nebraska, has been monitoring concentrations of arsenic in their source water and evaluating their options for treatment and removal since at least 2002. The report findings show that groundwater arsenic concentrations had seasonal variation around the City of Lincoln Water System well fields (LWS), with higher concentrations tending to be further south in comparison to samples collected further north. Isotope samples were collected and analyzed in surface water, groundwater, and precipitation across the LWS and were used to determine changes in the source water in production wells. The isotope concentrations were lower in the spring and higher in the summer and the fraction of groundwater recharge originating from the stream was higher in the early summer and lower in the late summer. Read more at: <https://doi.org/10.3133/sir20265138>



*Model Archival Summary for Suspended-Sediment Concentration at U.S. Geological Survey Site 06887000, Big Blue River near Manhattan, Kansas, during July 2018 through November 2025 (ver. 2.0, February 2026)* was recently published to USGS Sciencebase. This data release provides details on a turbidity-derived suspended-sediment concentration (SSC) model for USGS site 06887000 and documents the techniques and methods used to develop the SSC computation model. This update supersedes the previous model version published in Kramer and Williams, 2024. Read more at: <https://doi.org/10.5066/P13YQYVQ>

## Seminar Series

Please join us July 22<sup>nd</sup>, 2026, from 12-1pm for our Science Seminar Series over *Pesticides in Streams and Other Environmental Matrices in Areas Impacted by Pesticide Coated Seeds* with Michelle Hladik from the USGS California Water Science Center. Pesticide seed coatings have become increasingly prevalent in conventional agriculture in the last several decades with many treated corn seeds containing both insecticides and fungicides. The bioenergy plant AltEn generated ethanol from almost 100% expired treated corn seeds. The use of treated corn seeds for ethanol production resulted in accumulation of contaminated wastewater and solid residue at the plant. To better understand potential long-term effects, nearby sites were sampled over various matrices to further evaluate pesticide exposure and accumulation in the area. Michelle Hladik has been with the USGS California Water Science Center since 2005. She has a B.A. in Chemistry and a Ph.D. in Environmental Engineering. Her research focuses on the fate, transport, and effects of current-use pesticides and other organic contaminants in aquatic and terrestrial environments. She directs a laboratory that focuses on analysis of organic contaminants at trace concentrations in a wide variety of matrices.

