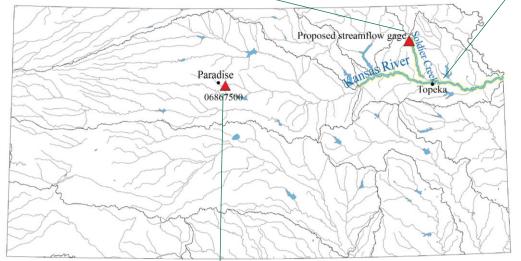


Kansas Water Science Center Quarterly Newsletter



The USGS, in cooperation with Kansas Department of Health and Environment, is beginning a new study to characterize long-term stream water quality in the headwaters of Soldier Creek with continuous monitoring and sampling to assess efficacy of soil health best management practices.





The USGS, in cooperation with Kansas Water Office, Kansas Department of Health and Environment, The Nature Conservancy, City of Manhattan, City of Topeka, City of Olathe, WaterOne, and City of Lawrence, has been conducting a dye-tracing study on the Kansas River. Results from this study are being used to calibrate a contaminant travel and dispersion model which will be made publicly available upon completion of the study.



Recent precipitation kept field crews busy with flood measurements. On Sunday, May 16, Andrew Clark and Nathan Sullivan measured high flow at Paradise Creek near Paradise, KS (06867500). Pictured is a time-lapse of the streamflow conditions at the site from 2–6pm where they observed a range of flow from 800 to over 4,000 cubic feet per second at Paradise Creek near Paradise, KS (06867500).



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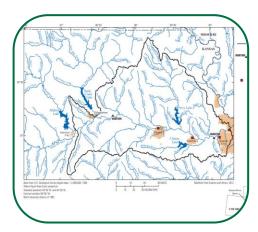
Science Spotlights



New Report! A trend analysis of 20 years of water-quality data collected in the North Fork Ninnescah River showed upward trends for total suspended solids, suspended sediment, orthophosphate, total phosphorus, and total organic carbon concentrations. Nitrate plus nitrite concentrations had downward trend probabilities. Report available here:

https://doi.org/10.3133/sir20215006

Kramer, A.R., Klager, B.J., Stone, M.L., and Eslick-Huff, P.J., 2021, Regression relations and long-term water-quality constituent concentrations, loads, yields, and trends in the North Fork Ninnescah River, south-central Kansas, 1999–2019: U.S. Geological Survey Scientific Investigations Report 2021–5006, 51 p.



New Report! New and updated water-quality surrogate models were recently published and can be used to characterize changes in the Kansas River. Advanced notification of changing conditions is valuable for water-treatment facilities. Report available here:

https://doi.org/10.3133/ofr2021101

Williams, T.J., 2021, Linear regression model documentation and updates for computing water-quality constituent concentrations or densities using continuous real-time water-quality data for the Kansas River, Kansas, July 2012 through September 2019: U.S. Geological Survey Open-File Report 2021–1018. 18 p.



New Report! 10 years of waterquality data collected in the John Redmond Reservoir drainage basin showed an annual reservoir trapping efficiency of 89 percent with an average of 56 percent of the total suspended sediment load to the reservoir being transported during streamflows greater than the National Weather Service flood action stage. Report available here: https://doi.org/10.3133/sir20215037

Kramer, A.R., Peterman-Phipps, C.L., Mahoney, M.D., and Lukasz, B.S., 2021, Sediment concentrations and loads upstream from and through John Redmond Reservoir, east-central Kansas, 2010–19: U.S. Geological Survey Scientific Investigations Report 2021–5037, 49 p.

Science Seminar Series—HABs SAVE THE DATE!

Join us August 4, 2021 at 1:00p CDT for a virtual presentation on harmful algal blooms (HABs). Keith Loftin and Brianna Leiker will be discussing USGS national HAB (including work with USGS, EPA, USACE, CDC, etc.) and local research (Milford Lake water quality and CyAN ground to space verification study). Please use this link to attend.



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