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Effects of a Forested State Park on Suspended Solid and Dissolved Organic Carbon Concentrations in an Agriculturally Impacted Watershed

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Previous research has indicated that agricultural land use can reduce water quality in streams. This includes: 1) an increase in suspended solids (SS) due to elevated erosion and 2) shifts in dissolved organic carbon (DOC) particularly due to different C:N between agricultural crops and natural vegetation. We examine spatial and temporal dynamics of SS and DOC in four rivers, located in an agriculturally impacted watershed in SW Ohio, as they flow from agricultural land cover through a naturally forested State Park. Nineteen surface water sites were sampled bimonthly from December 2019 to December 2020. Results will be presented to determine if a forested state park improved the water quality in SW Ohio. We will further discuss how the work done in SW Ohio could be replicated in other intensive agricultural areas of Europe with similar climate patterns.