

## Invitation to Submit to a Special Collection of Papers in JEQ: Microbial Water Quality: Monitoring and Modeling



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### Invitation to submit short abstracts for consideration before August 15, 2017

We invite authors to provide abstracts of papers they intend to submit for this special section of *Journal of Environmental Quality* before August 15, 2017. These abstracts should include a list of contributing authors, an appropriate title, and a brief abstract of less than 250 words. The proposed papers must reflect original research related to objectives in Special Collection Rationale, below. Email abstracts to the Technical Editor, Yakov Pachepsky ([Yakov.Pachepsky@ars.usda.gov](mailto:Yakov.Pachepsky@ars.usda.gov)). Submitted abstracts will be considered by the Guest Editors and the Technical Editor. Authors of papers that fit the rationale for this special collection will be invited to submit full manuscripts to the *Journal of Environmental Quality* before November 30, 2017. All manuscript submissions will be subject to the JEQ peer review process. Author instructions can be found at <https://dl.sciencesocieties.org/publications/jeq/author-instructions>.

### Special collection rationale

Concerns about pathogens in drinking, recreation, irrigation, aquaculture, and other types of waters have been increasing over the past decades in both temperate and tropical regions. Monitoring and modeling microbial water quality in complex catchments is therefore of paramount importance for both environmental and human health protection. Microbial water quality is currently evaluated using concentrations of both pathogens and fecal indicator organisms. Hydrological activity can affect pathogen and indicator mobilization, transport, and delivery through catchment systems and affect their export from both point and nonpoint sources. Soil and aquatic microbial and algal communities alter the survival patterns of pathogens and indicators, which are then moderated further by abiotic environmental controls. Global change (e.g., climate and land use changes) may also alter hydrological processes and thus the fate and transport of pathogens. This special collection welcomes experimental and modeling research that aims to improve our understanding of processes related to pathogenic and indicator dynamics in catchment systems and their compartments in order to inform stakeholders of microbial water quality and to evaluate potential health risks associated with site-specific conditions. Effects of mitigation and management practices on pathogen and indicator fate and transfer at multiple scales will also be of interest.

This special collection of papers will address the current state of knowledge of the links between food and drinking water safety, environmental quality, and human health. Invited technical papers must consist of original research that addresses these linkages. Submission of empirically based papers is encouraged. High quality modeling papers that include model validation are also welcome. Monitoring and observation papers will be considered if they test a hypothesis that will advance our knowledge and understanding of existing environmental concepts.