



Environmental Engineering & Sciences

Department of Civil and Environmental Engineering
Spring '24: CEE 595AG Seminar

Friday, March 22, 2024 | 10:00 – 10:50 a.m. CST | 3310 Yeh Center

Per- and Polyfluoroalkyl Substances in Drinking Water: Community Impacts and Interventions to Reduce Human Exposure

The Cape Fear River basin is the largest watershed in North Carolina, and it provides drinking water for about 1.5 million North Carolinians. In this presentation, I will highlight advances in analytical methods to characterize sources of per- and polyfluoroalkyl substances (PFAS) and their effects on surface water quality in the Cape Fear River basin. In addition, I will describe how stakeholder engagement has led to source control efforts and engineered interventions that have dramatically reduced human exposure to PFAS in communities that receive drinking water from public water systems that treat surface water. Finally, I will present effects of air emission from a fluorochemical manufacturer on private well communities.

Detlef Knappe, Ph.D.
Professor
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Speaker Bio

Detlef Knappe is the S. James Ellen Distinguished Professor of Civil, Construction, and Environmental Engineering at NC State University. He received his BS, MS, and PhD degrees from the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign, and he joined the NC State faculty in 1996. He is the Deputy Director of NC State's Superfund Center "Environmental and Health Effects of PFAS" and is a member of NC State's Center for Human Health and the Environment. Detlef's research interests broadly encompass drinking water quality and treatment. He is a member of the North Carolina Secretaries' Science Advisory Board and serves as Associate Editor for AWWA Water Science.