**Characterization of PFAS Plumes 70 Years in the Making**

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Under the 2018 Settlement between the State of Minnesota and 3M Corporation, the state was required to conduct a Source Assessment and Feasibility Study for the spread of PFAS resulting from a conveyance system called Project 1007. This Source Assessment and FS project dovetails with regional impacts under investigation as part of Superfund Consent Orders for originating from source areas of 3M PFAS impacts originally dumped in wetlands 70 years ago. These historic release impacts now span hundreds of square miles and continue to move throughout the surface and subsurface hydrologic regimes, impacting drinking water resources for more than 170,000 residents of the East Metropolitan area of the Twin Cities in Minnesota. The investigation includes characterization tools and approaches unique to the PFAS class and a complex hydrogeologic system made up of glacial, karst and fractured tortuous pathways. Utilizing a robust spectrum of tools and techniques, this study has led to advancements in knowledge and understanding of PFAS fate and transport of terminal product mixtures.